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BIG CREEK'S RESPONSE TO THE COMING OF THE RAILROAD

"OLD BUNCOMBE" PROMOTES THE BETTER LIFE IN A RURAL COMMUNITY

EDMUND CODY BURNETT

Del Rio, Tennessee

IN THE HOME

The object of this article is to point out sundry transformations, wrought mainly by the railroad, known familiarly as "Old Buncombe," in the homes and on the farms of the people of the valley of Big Creek on the French Broad River in East Tennessee.[1] By these transformations home industries and handicrafts were largely supplanted by the products of the faraway factory. The story ought perhaps to be exhilarating, yet in retrospect it is in many ways depressing, even melancholy. It tells how a community, once as nearly self-sustaining as any group of people in that day and time could well be, little by little became dependent on the railroad not merely for their luxuries but even for many of the necessities of what had come to be deemed better living.

Naturally the storekeeper was the harbinger and a principal agent in the transformation. A store had been set up and was eagerly waiting for the first railroad train to bring goods for the empty shelves. Aiders and abettors in this transformation were the Knoxville wholesale merchants, alert for the new business the railroad would bring them.

In a little or no time the names of some of these Knoxville firms became familiar household words all up and down Big Creek and in the region roundabout. Among these were Cowan, McClung, and Company, dry goods, etc.; W. W. Woodruff and Company, hardware; and Sanford, Chamberlain, and Albers, drugs, flavoring extracts, and the like. McClung and Sanford even got their names pinned on two of the first babies to come along, which goes to prove that, if they had begun early enough, they might have made a success in politics as well as business. Sanford did in later years wade a little way out in the political fish pond, but the most that he then caught was a tongue-lashing from that political tycoon (to borrow a very modern appellation for a very ancient species) Leonidas C. Houk, who found occasion for pronouncing anathema maranatha upon "Old E. J. Sanford, who had made a fortune selling pokeberry juice to the people."

The Sanford firm not only supplied our folks with all manner of patent medicines, but it had its own line of household remedies, most of them bearing the name of the "renowned" Dr. Hart. (Don't seek for his first name, for I am convinced he never had any.) Dr. Hart soon acquired the reputation in our country of being the greatest doctor of the age. It was, therefore, something of a surprise to me when my father told me that Dr. Hart was a purely mythical character. Even if this fact had been generally publicized, I doubt if it would anywise have diminished the immense popularity of "Dr. Hart's Great Relief," a bottle of which was to be seen on practically every mantel in all that mountain country. "Hart's Relief," as it was more briefly called, was the hero in many a rescue from cramp colic, plain bellyache, "and sich." What its ingredients were I know not, but the effect of a large dose was sometimes said to be equal to that of both kinds of lightning combined.

"Hart's Relief" had no worthy competitor in its own field, although others of Dr. Hart's remedies did have competitors by the score. Jayne and Ayer, in particular, were names to conjure with, although it must be said that each had its coterie of devotees, whose attitudes the one toward the other were much after the manner of the ancient Jews and Samaritans. An addict to Ayer's pills, for instance, would scorn to insult his bowels by offering them a pill from a wrapper bearing the

[1] The first railroad train reached the town of Big Creek, now known as Del Rio, about Aug. 5, 1868. See my article, "The Railroad Comes to Big Creek," Railway and Locomotive Historical Society, *Bulletin 68* (November 1946). For the story of how the people of East Tennessee marketed their livestock, chiefly hogs, prior to the coming of the railroad, see my article, "Hog Raising and Hog Driving in the Region of the French Broad River," *Agricultural History*, 20:86–103 (April 1946). For an account of an industry that was made possible by the railroad, see my article, "Shingle Making on the Lesser Waters of the Big Creek of the French Broad River," *ibid.*, 20:225–235 (October 1946).

name of Jayne, and a votary of the house of Jayne would denounce Ayer's "Cherry Pectoral" as having less virtue than chestnut stump water. One could easily tell to which sect a family belonged by observing whether it was Jayne's or or Ayer's almanac that hung by a nail in the chimney corner. No such rivalry, however, was evidenced among the children, who, regardless of the name on the almanac, as eagerly poured over the pictures of "Before Taking" and "After Taking" as do their descendants over newspaper comics.

When I recall the multitude and variety of patent medicines that were in common use, I marvel that so many of us survived. That most of us did is proof that we were a tough lot. I sometimes wonder, too, what has done away with so many of the manifold complaints that bedeviled our lives and drove us in search of remedies. Worms, for instance. What became of all the worms that once infested young human bodies so grievously that a large item in the storekeeper's profit was from the sale of worm candy and vermifuge? That the worms were a reality every child discovered for himself after one good dose of "Mrs. Winslow."

The contest between patent medicines and home remedies was, to be sure, a long and sometimes bitter struggle. In my youth home remedies, many of which had come down through the centuries, still held their own with vim and vigor. Take, for instance, neat's-foot oil. How could families of ten to fifteen children have so successfully combatted the eternal ttacks of colds and croup without it? Applied outwardly to throat and chest, especially with the aid of a woolen stocking about the throat and a piece of red flannel on the chest, it brought relief to millions; taken internally it speedily restored a lot of broken harmonies. And if it tastes worse then castor oil, isn't that a proof of its virtue? But alas! you would now search the medicine shelf in vain for it. If it is there, it is at least under some disguise in taste and smell as well as name.

True, the use of home remedies was sometimes allowed to run rampant. For instance, I once saw some fifteen or twenty different concoctions poured into an old Negro in the course of as many hours to relieve him of something supposed to be cramp colic, and he survived them all, including a drenching of stewed dogfennel. In the same category belongs the case of another man of color who sought a cure for the "rheumatics" by taking every concoction anybody would suggest. Describing to me once the catalog of remedies he had tried, he closed with this comment: "But the nastiest thing I ever took in all my born days was redworm oil." He also survived, victorious over every "rheumatic."

Life in our valley prior to the coming of the railroad could not quite properly be called primitive, even though, as I have said, it was to a high degree self-sustaining. And it must also be recorded that the old mode of life did not give place to the new all at once. Indeed, not only home remedies but all manner of home economies, lingered on for many years, as though scarcely aware of the newcomers. To some extent the same is true of the handicrafts. As an example of the persistence of the old, take the coloring of Easter eggs. Barks and herbs as the source of dyes persistently held their own against all comers quite into recent times. Indeed, in most households they probably do to this day, as do some others of the home-made, the home-grown, and the home-concocted.[2]

As regards all those phases of life that may be grouped under the phrase, eating and drinking and making merry, life went on for another full generation much as it had done before ever "Old Buncombe" set out upon its career of revolution. Most of the families in the valley and some of those in the hills had, from the time when the memory of man runneth not to the contrary, borne the reputation of being "good livers," accustomed to set good tables such as the present generation, themselves by no means niggardly in that regard, would deem sinfully extravagant. And "Old Buncombe" could offer mighty little in way of variety. I have myself dined at tables where a

[2] Some of the early Christians, we are told, turned the Lord's Supper into an extravagant feast, and a like proneness to false notions of religious observances has manifested itself time and time again in human history. Take, for instance, the case of the man (his name now escapes me, although in my youth I heard this story about him times without number) who celebrated Easter by eating 40 hard-boiled eggs in a single day. There was a great variety of colors, I understood, especially red, green, yellow, blue, and striped. The point is, he did not eat them in celebration of Easter at all, but on some sort of wager. Some witnesses doubted whether he would live to tell the tale; but he did, and when my father later queried him about the performance, not so much with regard to his spiritual as his physical reactions, he remarked: "D'ye know, I didn't git hongry fur three or four days atter that."

mouthful of every one of the things offered would tax the capacity of any man of modern times. The most ravenous boy would have found it impossible to devour one slice of the customary size from each of the pies set before him, even if he had eaten nothing else.

Coffee, sugar, salt, rice, pepper, and spices of one sort or another had of old been among the imports, coffee and salt being necessities, as was sugar only in lesser degree; but all these articles, being now more easily obtained, were consumed in more liberal quantities. Tea drinking was but little if at all in vogue, except to some extent in our own family. This exception, if such it was, doubtless stemmed from the fact that my mother had brought the custom with her from Alabama.

Brown sugar was generally considered as belonging in the category of necessities, although "long sweetenin' " still had its place in some households. Maple sugar, once produced in considerable quantity in the valley, by the time I had cut my sweet tooth had long since become a rarity. White sugar, on the other hand, was decidedly a luxury. That fact is well evidenced by a story that was long a favorite in the community and has not even yet, a full three-quarters of a century after, entirely lost currency amongst the valley's traditions. A man who dwelt on the inner rim of the valley was dining at one of the principal homes and was offered a piece of apple pie sprinkled over with white sugar. "No, thank you", he said politely; "I don't keer for any." When they had withdrawn from the dinner table he confided with a broad wink to a fellow countryman: "They couldn't fool me with their salty pies." Thereafter, throughout his long (and honorable) life one of two sobriquets that he bore was "Salty Pies."[3]

On the other hand, at rare intervals the railroad was responsible for a scarcity of many things that had taken their place among the necessities. Rimmed on all sides by high mountains, except where the river offers an incommodious exit and entrance, the valley was an isolated domain until the railroad came to furnish egress and ingress, and not until the river was bridged many years later was that isolation wholly done away. "Self-help" was, therefore, a law of nature, and a stark individualism was the inevitable consequence. To get anywhere at all it was long necessary to cross the river, and when the river was in flood, the isolation was complete.

I well remember how the flood of 1875 cut us off from the world for a period of three weeks or more. Bridges and sections of track were washed away, and no trains could run. The consequence was a partial famine of necessities. One day I was out on the farm with one of our tenants, George Brooks, when we were suddenly startled by the whistle of an engine. George stretched himself to his full height and yelled at the top of his voice: "COFFEE! COFFEE! COFFEE!" I had heard him complain of the wretched substitute he had been enduring, a concoction of parched wheat, rye, corn, and maybe a few other odds and ends by way of giving greater complexity to the flavor, but not until then did I realize what a cup of real coffee meant to one habituated to the beverage. Many a time during the seventy-odd years that have since elapsed I have thought what fun it would have been to stand by and watch that man Post try to persuade this red-headed red-bearded countryman of mine to take a drink of that concoction called "Postum." I can well imagine Mr. Post slinking away in defeat and muttering to himself: "There's a reason!"

One consequence of our isolated situation might well have been tragic, although I do not recall that it ever was. There was no resident physician on our side of the river, the nearest being at Parrottsville, 8 miles north of us, where dwelt two doctors, Michaux and Bell, who practiced their profession over a circuit of some 20 miles, in an atmosphere of intense rivalry. Indeed there was a cleavage between the adherents of Dr. Michaux and those of Dr. Bell such as existed in the realm of politics between Rebels and Radicals, although the clefts were not at all along the same line. To be sure, there were "grannies" all roundabout, a plenty and to spare, and a good many people were wont to boast that they had never had occasion to use the services of either doctor. For instance, one man once said to me, as he cast his eye proudly down a line of seven children ranging from 2 to 11 years in age: "We have never had a doctor in our house."

Not so, however, with most of the families in the valley. My father would confidently administer simple remedies for simple ailments, as, for instance, once when in the middle of the night

[3] This worthy fellow citizen, by referring to hogs of reddish color as "bay," a characterization reserved exclusively for horses, achieved a unique distinction. From that time forth he was known to all and sundry as "Bay Hog" Sexton.

I developed a very bad case of croup. My own first awareness that my condition had created some anxiety was when I was plunged into a tub of water as hot as I could bear, and my first conviction that my case was serious was when my father inserted an enormous quid of tobacco into his mouth, crunched it to a squush, then inserted it into my mouth and bade me chew. He was not at all concerned whether he might be opening the door to a very bad habit for me. His purpose was to effect a certain quick result. The effect was astonishingly speedy, and the result was in the fullest possible measure. On another occasion, likewise in the middle of the night, he evidently convinced himself that my condition called for something more than hot water and a second-hand chew of tobacco. He sent a hired man in haste for Dr. Michaux. The doctor was found some 20 miles distant and reached my bedside before daybreak. Here I am, some 77 years later, so credit or debit the doctor, as may seem meet.

Dr. Michaux officiated, if I mistake not, at the advent of all of my parents' children who were born in Tennessee, save one. The occasion that stands out particularly in my own memory was when my brother Will (the late Dr. W. M. Burnett) came along; and the memory of the occasion is both deep and wide because it was during the flood of 1875 mentioned above. I will not assert that my father anticipated the flood, but he did take care to have Dr. Michaux at hand, in actual residence at our house, some days in advance. Furthermore, he had also made certain provisions for the doctor's own comfort and happiness in advance, provisions he always deemed needful whenever he expected the doctor to tarry with us for any length of time. He sent up into the hills (just where I do not know to this day) for a jug of whiskey; for a good stiff toddy in the morning was one of the necessities of Dr. Michaux' life and probably also to some extent of his efficiency as a physician.

It was, of course, a piece of great good fortune that Dr. Michaux was at least on our side of the river when the old French Broad went on that fearful rampage. As it was some three weeks before the river was again crossable, the doctor abode with us all those days, only riding up the creek now and then on some professional call. But there is another reason why the doctor's sojourn with us has left a sharply etched memory. Dr. Michaux was something of a violinist, and my father had a violin (we called it a fiddle). Probably he was the only Baptist preacher in all East Tennessee who kept a fiddle in his house and even played it himself. And so, during those dreary weeks (and it was rainy weather) Dr. Michaux spent much of his time playing the fiddle—Bonaparte's Retreat, the Devil's Hornpipe, Pop Goes the Weasel, Old Miss Mashburn, Sourwood Mountain, Arkansaw Traveller, and all the rest. The doctor had a thick shock of hair, a long heavy mustache, and an equally pronounced goatee, and as he played he not only kept time with his foot, his whole body weaved back and forth in unison with the music, and his face was suffused with a joy that had not seemed possible to such a face. It lies in my memory, though but dimly, that occasionally he took an extra sip of toddy between tunes. All in all, we had a jolly time, and, when at length the river had subsided sufficiently to permit the ferry boat to operate and the doctor mounted his horse to go home, I was depressed. I could not help wishing it were not so long between floods or between babies. From any point of view, another fortuitous combination of the two was a consummation devoutly to be prayed for.

Let it not be supposed, however, that our isolation from medical service was anywise relieved by the coming of the railroad. There came a time when we did have a resident physician in our midst, but I doubt if the railroad had any share in it. To the contrary, the railroad and the improved highways have, in the course of years, brought it about that the doctors all huddle together in one place, to devote their skill mainly, it would seem, to practising on one another. Not just our small valley alone, but the whole country has become as void of the tinkers with human interiors as it has of every other variety of tinker, whether with metal or wood.

In an adjoining field of service the railroad did once play a sort of grim joke on us. Until comparatively recent times, the professional undertaker was quite unknown. Most of the young survived all ailments, and most of the elderly just kept on living. When one did die, the coffin was made of common plank and covered with black cloth. The case of an uncle of mine, who, some forty years before he passed away, cut a walnut tree and had it sawed into lumber for his own coffin, was an exception.[4]

[4] It was another relative, himself then a young man, who conceived the idea of doing the community a service by importing a lot of ready-made coffins.

All this was but a passing phase of the isolation that from the earliest times had been the very marrow of our valley's bones. Life could begin without a doctor, and it could end without an undertaker. It was for the good things of the life between that folks were hankering, and many of those the railroad was promising them. I have mentioned coffee as one of the prime contributors to the more abundant life, but its yoke mate in furtherance of the pursuit of happiness is tobacco. These two, I maintain, have done more to promote human fellowship and contentment than all the mechanical inventions of our age.

The railroad can not claim credit for introducing either of these boons into our hitherto isolated lives, but it did bring coffee in greater abundance, and it began immediately to offer tobacco in forms that straightway won a large appeal. Plug tobacco (commonly called "manifac") and snuff speedily took high rank among the importations. For smokers, on the other hand, home-grown tobacco, generally made into twists and familiarly known as "long green," continued for a good many years to keep a firm hold on its devotees. An occasional smoker even "rolled his own" cigars from the natural leaf. The great majority of men, however, clung devotedly to the pipe, which they affectionately filled with the shaved twist. Pipe smoking was not, in fact, by any means unknown among the women, although their favorite mode of indulgence in the weed was that known as "dipping," the snuff being applied to the gums by means of a small brush preferably made from a twig of the tasty water birch. In those good old days it was only the women who dipped snuff, but nearly every woman among the hill people did dip, as did a considerable percentage of the women of the valley. In a later, a degenerate, age, the snuff habit took captive the men in large numbers. The old-time use of snuff by snuffing was rarely seen in our community.

Only an old-timer like myself could revel in memories of the store stove on winter days, with its circle of pipes of long green, all going full blast. Many's the time when, standing apart, I have seemed to behold in such a scene all the peace, all the contentment, all the love of life and love of fellow men that the world, or at least our little world, had to offer.

Yet for the looker-on, if he were a nonparticipant and if he drew too nigh, even such a scene might go into reverse. The pungent smoke of the long green would get into his eyes and lungs and might even penetrate to the lowest depths of his bowels. I well remember such a gathering about the waiting room stove when I was station agent of the railroad. It was an assembly of men, six or eight of them, from Haywood County, North Carolina, a region reputed to be still lingering in the grip of the primitive, for it was separated from our valley by high mountains and therefore had been but lightly touched by that spirit of progress that was astir on our side of the mountains. Evidence of this fact the men had brought over the mountains with them, for each and every one of them was clad in a suit of homespun, a heavy-gray woolen cloth, doubtless derived from his own sheep, carded, spun, woven, and tailored by his wife. The combined whiskers of the group would have filled a good-sized feather bag. It was not, however, either the clothes or the whiskers of those men that furnished the climax of this memory. It was the dense and penetrating smoke from their pipes. For sheer safety I was driven at frequent intervals, despite the bitter cold, to seek the outer air. Indeed, I narrowly escaped a more serious discommoding.

Somewhat later our folks discovered how our neighbors in North Carolina, particularly in Madison and Buncombe counties, had caught a ride up the long steep economic hill that we had missed. They had gone into tobacco culture on an extensive scale. The bright yellow fire-cured leaf was in great demand as wrappers and consequently brought big prices. Every available acre in those hills and hollows became a tobacco patch, with the inevitable consequence of severe soil depletion. Thereupon some tar-heel hillbillies moved down the river to become Tennessee valley-williams. Straightway our drowsy eyes were opened, and we too began to grow tobacco. In

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For many years there was not so much as a single call for one of them, and for the best of reasons: nobody died. Discouraged, my relative disposed of his stock of coffins to a burial concern located where promises for their business were better. Not long afterward this relative was approached by the agent of a coffin manufacturer and besought to buy a stock of coffins. "No, No!" said my kinsman; "I tried that once." "Yes," remarked the salesman, "I know about that. But conditions are different now. I understand that two young doctors have just hung out their shingles in this community."

a little of no time tobacco barns rose all over the valley and in every hollow of the hills. Then suddenly the price of tobacco fell with a sickening thud. For two or three years we waited hopefully for prices to come back; but they didn't come back, and, that we might better forget, we tore down our tobacco barns and made stove wood of the logs. It was a good many years before our folks recovered sufficiently from the debacle of the "fire-cyored yaller" to try their hand at tobacco again, and then it was burley, which required an entirely different type of barn. Burley has, in fact, in these latter years, become the symbol of that transformation whereby, from the high plane of self-sufficiency, of almost complete independence, we have fallen into the quagmire of almost complete dependence on that outer world of the railroad and the truck. Moreover, only a negligible proportion of our product is consumed by our own firesides or in the course of our agricultural perambulations. Some indeed aver that to smoke the raw burley is to take your life in your hands. This doubtless is an exaggeration, yet I can testify from my own experience that, after two or three pipefuls, you may have to take your head in your hands.

There was one household commodity that not even the combined efforts and ingenuity of manufacturers, wholesalers, drummers, railroads, and storekeepers were able with any degree of success to banish from the home until at least two generations had come and gone. Procter and Gamble, aided and abetted by a shrewd and not wholly scrupulous crew of concocters of "soap operas" and a skilfully organized and highly paid troupe of "washboard weepers," have, through the instrumentality of the radio, almost accomplished it, but even these meet defiance here and there in our mountain fastnesses. Of course I am speaking of soap and of lye soap in particular, that glutinous offspring of the smokehouse and the ash hopper, that common friend of man and dog since that far-off time when those two dwelt together in caves, even down to our era, when they dwell more or less apart.

And what man amongst you, be you farmer or mechanic, if your memory goes back to the gladdening days of lye soap, who does not yearn, with a yearning that passeth the language of Queen Elizabeth or Shakespeare, for the gourd of soft lye soap that once upon a time was always close at hand whenever and wherever men were wont to wash? That soap that was without a peer for the removal of dirt and grime, that soap that was so comfortable to the feel! Did not one of the prophets of old, one who had had a lifetime of intimacy with the soap whose maternal ancestor was the ash hopper, declare that cleanliness was next to godliness? And was it not the Reverend Henry Ward Beecher who took up the torch where it had fallen from the prophet's hand and declaim: "If cleanliness is next to godliness, then soap must be a means of grace"? Neither of these went so far as to maintain that soap is essential to salvation. It was Horace Maynard, a son of Massachusetts removed to Tennessee but neither a prophet nor a divine, who risked his own political salvation on that faith and lost. It was when, if I mistake not, he was seeking to become governor that he characterized the Democratic voters of the State as "The Great Unwashed," and for this he was summarily "washed up" in the election that ensued.

The birth of the ash hopper I shall not endeavor to date. I leave the task for the paleontologist or the anthropologist or the two working in cahoots. All I wish to do here is to emphasize the importance of the part the ash hopper has played in our home and farm life, even within the memory of some now living, and further to declare that nothing short of an economic revolution could have uprooted this ancient and all but sacred institution from the foundations of our civilization.

That the railroad would sooner or later work a revolution in clothes, male as well as female, scarcely required the gift of prophecy to foretell. Any differences between prophecies would have pertained mainly to the speed of the revolution. One would naturally expect that the first manifestations of the revolution would be in women's clothes, yet I doubt if that were the case. My own memory seems to register a more slowly revolving feminine wheel than masculine. This may have been because in our corner of the wild wood the male of the species retained his age-old dominance rather longer than would seem to have been the case in some other localities. Or it may have been due to the limited supply of eggs and feathers, the principal medium of feminine purchasing power. Anyway, linsey dresses (our folks never used the term linsey-woolsey) continued in use for everyday purposes long after calicoes and other bright-colored dressgoods had become common for Sunday wear. In fact, linsey continued to be woven here and there even after it had begun to be imported.

There never was in my time a loom in our house, although for a number of years there was one on our place. When George Brooks moved from that borderland of hills between our valley and the Grassy Fork country, to become a long-time resident on our farm, he brought along a loom on which his wife wove goods of several sorts. The loom had been made no doubt by her father, Andrew Shell, elsewhere mentioned as a skilled workman in both wood and iron. In the matter of head gear likewise the women were more conservative than the men. The old sunbonnet, with splits all around, remained a favorite for everyday wear, and with many women for Sunday as well, long after ornamental hats had come to dominate the Sunday scene.

In the domain of men's clothes the historic fact is that home-spun, home-woven, and home-made suits held preference among the older men for all of half a generation after the coming of the railroad had made ready-to-wear suits easily obtainable. The young men, on the other hand, eagerly took to the ready-made. For one thing, the brought-on clothes offered a variety of patterns not obtainable from cloth of domestic manufacture. Nevertheless, the cloth from which their elders' suits were made was often as handsome goods as could be obtained from any distant factory, especially if it had been fulled.

In the matter of styles likewise the older men, as was natural, were inclined to hold fast to the familiar, while the young men's fancies were caught by styles that were new. Take, for example, the so-called "possum-belly" breeches. They had ceased to be the vogue before my eyes had begun to photograph the passing scene, yet a number of the elderly men whom I knew never forsook them while they lived. Possum-belly breeches, in case the appellation is not familiar to you, are trousers having an abdominal flap that was buttoned at one or both hips, especially designed to conceal, as an immodest exhibition, the opening down the front which in time became so commonplace as scarcely to be noticed at all. Anyone familiar with the marsupial pouch will readily agree that the designation "possum-belly" was a "natural." This very gesture of modesty, however, in all probability effectually defeated its purpose.

How about pantalets? Some grizzled veteran will inquire. Yes, my eyes have beheld the ruffled pantalets, above as well as below the shoe tops, on young as well as on old. True, they had mostly been cut up into handkerchiefs before my time, or else, severely curtailed, had disappeared from the casual view—gone underground, as they say of secret political movements. Still, like the old men who adhered to the possum-belly breeches, a few of the women who had matured in the early sixties and had found grace and beauty in the hoop skirt and comfort in the pantalets, readily surrendered the hoop skirt but refused to part with their pantalets. But the most pungent of my racy memories is of the school girl who in height had outgrown most of her clothes, had grown so fast, in fact, that a new dress was too short for her almost before her mother could get it made. She would appear in school one week wearing a dress that approached her shoe tops, the next in what the poet Burns called a cutty sark, but betwixt the cutty sark and the shoe tops—or a little lower—a length of pantalets that her mother had probably discarded some years before. And nobody found fault with either costume. We were the most individualistic of people in an era of individualism, and there was mighty little the railroad could do about it.

Not all the home-made clothes, however, were of home-made cloth. The stores brought on bolts of a cloth known as jeans, usually close-woven and of hard texture, calculated to withstand indefinitely the rough usage to which the man at the plow and the small boy were wont to subject their breeches. In time it became so slick that even a fly could scarcely retain his foothold on it. Of such, "off and on," were my own clothes as a small boy, although long before I had mounted to my teens another source was available, at least for my Sunday-go-to-meeting clothes. That source was the discarded suits of an older brother and an uncle. This is not to say that I was not suitably dressed, for those two sporty young men were wont to acquire the best suits obtainable, and my mother's skill with shears and needle was quite equal to the task of necessary alterations. Not until I was approaching the age fifteen, then a freshman in Carson College, did I don a store suit of my own. And it was soon thereafter that I donned my first tailor-made suit, an experience that even in memory thrusts me through with fierce pain.

Home for the Christmas holidays, I found my father wearing a tailor-made suit of handsome gray cloth that had come direct from a fulling establishment near Greeneville. A tailor had recently set up his shop somewhere in the wilds of Grassy Fork, the last place short of the Congo it would seem in which a tailor could expect to carry on his business. However, my father liked his suit so well that he

determined to have the tailor make me a suit also, and there was just enough left of the bolt of cloth for the purpose. So off I went on my little bay mare, lugging the bolt of cloth, and found my way into the right hollow and to the tailor's house. He took my measure with meticulous care, and with like meticulousness set down the figures—at least some figures; I did not verify them. Green youngster that I was I did not discuss the matter of style with the tailor. My notions of style were quite misty anyway. Jogging back home I had animating visions of striding across the campus in all modesty but with swelling pride and listening to admiring compliments on my new suit from my classmates. Even that beautiful girl I sometimes passed on the street might show a gleam of genuine interest.

Back in college, the vision grew rather than diminished. Then the suit came and I opened the parcel with fluttering heart. I spread the suit out on the bed—and my heart almost ceased to beat The thing had *tails*! What sort of a figure would I cut stalking about the college with flapping tails? The very thought filled me with a deep and awful dread. But the worst was yet to come. When I tried on the coat, I could not escape the conviction that the tailor had mistakenly used for his pattern a map of North and South America. At the shoulders the coat would accommodate two of me. At the waist barely half of me! Swift as the slow-moving mails would carry it, I sent my father a cry of distress, a wail of despair; in modern speech, an S O S. Whether he went to Knoxville for the express purpose I am not quite sure, but not many days thereafter he came up from Knoxville bringing me a new suit. If before I had been in the gall of bitterness, now all was "sweetness and light"—or something equally gratifying.

I have been speaking here of winter clothing. For summer the older men in all that region roundabout were much addicted to what were called tow breeches. Prior to the war the country had grown its own flax and woven its own cloth therefrom, but I can not recall even seeing a field of flax; therefore I am sure that, in my time, the cloth for tow breeches was imported from somewhere outside the valley.

In the first, or maybe the second, summer after the coming of the railroad, there arrived a shipment of straw hats to which men took as ducks to water. They were an ideal complement to tow breeches, both in comfort and adornment, and as such were universally esteemed—at least for a while. The hats were made of the common bulrush that grew here and there on every farm wherever the ground was marshy. They were broad of brim and at least had an uncontrollable tendency to become high of crown. Nearly every masculine head that soared above a pair of tow breeches donned one of these hats, and the pleased countenances beneath them marked them as among the summer's chief delights. That is, until perchance one was overtaken by a rain. The effect of even a light shower was for the brim depressing, for the crown uplifting. A second shower, and the brim sank lower, the crown rose higher. A third shower, and the hat became an upturned funnel, a veritable duncecap. The popularity of the hat went into low. To be sure, they were cheap, about 25 cents, so that the purchase of a new one would not unhinge the average budget, but by midsummer, when most of the hats had "gone to seed," the storekeeper was too discouraged to order another supply.

Along about that time our section foreman, Andy Swatzel, uttered a pronouncement that might, in any community save ours, have put the seal of finality upon both straw hats and tow breeches. Quoth he to a chance gathering of his fellow citizens: "I've worn one straw hat and one pair of tow breeches, and, the Lord being my helper, I'll never wear another of either." In lively terms he described the progressive stages of his one straw hat, and then he related his experience with tow breeches, in some such manner as the following, to wit: "I had to get out in the dew a good deal, and the bottoms stretched till they got under my shoes. I rolled 'em up, but the next day they stretched some more, and the roll got down in the way, so I rolled 'em up again. By the middle of the week I had a roll of breeches on each leg as big as my arm. That was too much for me. I whipped out my knife and cut off them big rolls of cloth and threw 'em away. My wife washed them tow breeches, hemmed 'em and ironed 'em, and when I put 'em on again they struck me above my knees. No sir, no more tow breeches for me."

That nobody in our community had thought of using the superabundance of bulrushes for the making of hats would seem to argue a lack of enterprise and ingenuity. That, after one summer's experience with those hats, no one would give such an undertaking a moment's consideration, is quite understandable. However, as evidence that the community was not wholly lacking in the hat-making skill, I offer the following factual exhibit. An elderly woman on our place, Mrs.

Margaret Brooks, mother of George Brooks, our principal tenant, made straw hats that were the equal of anything brought on from the distant factory (she was then past 80, for according to the census of 1870 she was then 77). The material she used was rye straw, gathered when half ripe from the bunches of rye usually to be found scattered through the wheat fields. My recollection is that it took her two or three days to make a hat, and, because the season of ripening rye was short, the number of hats she could make in a single summer was limited. Some of her hats were, however, still doing service when she passed away some years later.

For footwear most men, and boys as well, wore boots in winter time, with their trousers tucked inside the high boot tops. One of my proudest possessions, when I was little more than a toddler, was a pair of red-topped boots with brass toes. Shoes were among the earliest importations by the railroad, boots in lesser quantities, but to a considerable extent the community continued for a number of years to be shod with the product of their local cobblers. The shoe shop in our village, operated many years by Butler Dozier, assisted by his brother, Reese Dozier, was one of the busiest places in the village, rivaled only by the blacksmith shop and indeed surpassed the latter as a community center. It took the railroad more than a quarter of a century to put that shop out of business. In fact, I am not at all sure it was the railroad that did it.

When I recall the shoes that were first offered for sale in our stores, I am astonished at the stupidity that was responsible for them. Where they were made I do not know, but I can imagine that the people who made them must eventually have hidden their heads in shame or even to have sought to sink their identity without trace. Believe it or not, those shoes were not made in rights and lefts. On the contrary, both shoes of a so-called pair were made on precisely the same last. To convert them into any semblance of rights and lefts required a week or two behind the plow. To the best of my recollection when the storekeeper had cleared his shelves of those shoes or, what is more likely, had fished out the last pair in the box, to sell at a bargain to some fellow who seldom wore shoes anyway, no more of them were ordered. That type of shoe was succeeded by what was known as brogans. Brogans, which were ankle high and stiff as wood, were themselves effectual makers of corns and bunions. Indeed, some people swore that a new pair of brogans would skin your feet while you sat on a rail fence or on a nail keg at the store. And fellow traveler with the no-right-and-left shoe, and with the brogan for a season or more, was the no-heel sock, which without doubt contributed its full share in the promotion of blisters, corns, and bunions.

Of women's wear my memory is much less definite than it is of men's. I do remember, however, that along with brogan shoes for men came a very similar shoe for women. It was pretty generally worn by women back in the hills and to some extent in the valley. It was a little lighter and had just a little higher top than the brogan, but any woman anywhere in the last fifty years would have deemed herself disgraced if caught wearing a pair of those shoes.[5]

[5] I cannot say with absolute assurance that our Aunt Milly never wore a pair of brogans, even when they were, so to speak, the vogue. There was a time when our water had to come from a spring at the foot of the hill, and many's the time I have seen Aunt Milly wobble up that hill carrying five buckets of water, one on each arm, one in each hand, and one on her head. To the best of my recollection, she wore no shoes on these excursions. See my article, "Hog Raising and Hog Driving in the Region of the French Broad River," 97, for a particular account of Aunt Milly's craftmanship as a sausage stuffer.

Aunt Milly was a postwar importation into the valley. At the end of 1867 or early in 1868 my father brought up from Henry County, Alabama, a family of Negroes that had been among the fifty-odd slaves on the plantation of my maternal grandfather, the Reverend Edmund Cody. The family consisted of Uncle Charles, Aunt Milly, and their three boys, George, Shiloh, and Wade. Uncle Charles had been my grandfather's miller, and, when I was first told of his former occupation, I wondered if that was how his hair and beard came to be so white. For he was one of those rare African specimens having not only thick heavy hair but also a rather luxuriant beard; and, since it would seem that he trimmed his beard but little and his hair not at all, he had, as I remember him, a very striking appearance. The old man passed away in the mid-seventies. After two or three years on our farm, he acquired a piece of land some 5 miles back in the hills, subsequently considerably increased in acreage by his two oldest sons, who made their home there while they lived, although both of them continued to make "hands" on our farm through much of the year. Aunt Milly in particular, who long survived her husband, was almost constantly in our kitchen until well down toward her last years.

"Milly" was short for Pamelia. At least the census of 1870 records her as Pamelia Cody, and I do not

Just what type of shoe women wore for dress purposes in the beginning of the period under consideration I am unable to determine from memory, but I do recall vividly a style of women's shoes imported in the early seventies, a style that disrupted household procedures and strained marital relations. The shoe had an exceedingly high top and was closely laced all the way. I do not forget that women wore very long dresses in those days and that as they moved to and fro the tops of their shoes were not supposed to be visible, but in the lives of small boys there are fortuitous concourses of events, and some of them befell me, some that befell the eye, some the ear.

It was my lot, for instance, to move or to stand inconspicuously among the coat tails of my elders at the store or at like assemblages elsewhere and listen to the grumblings at the storekeeper for ever having brought on shoes for women that took them a good half day to lace. They doubtless exaggerated the time, but it was unmistakably clear that all these men deemed the making of such shoes an infringement of human rights. One of the most resentful of the grumblers was the section foreman already mentioned, who, in one of the familiar exchanges of sentiment, spoke out forthrightly in words both pungent and penetrating. The mildest of his expressions was to the effect that he got hungry as a hound every morning waiting for his wife to lace her shoes before she could get his breakfast, or if she did start breakfast first, she was sure to let the biscuits burn while she laced and laced. A small boy with a listless air can pick up a lot of knowledge, useful and useless, good and bad, right and wrong, just moving quietly or standing noiselessly amongst the coat tails of his elders.

ON THE FARM

If I mistake not, the turning plow was just coming into use in the valley of Big Creek around 1870. Theretofore the bull tongue had been the common plow for all purposes and continued to be the main reliance for most purposes long thereafter. The name "bull tongue" was derived from the long slender point or share that was bolted to the foot of the plow stock, the share generally used for breaking and cross-breaking land; but a shovel plow, broader and shorter, was also in use for the cultivation of corn. The bull tongue, or single, plow was as a matter of course entirely home-made, generally the product of the blacksmith shop, although the stock was often made by a man who specialized in wood work. It was something of an art to make even as simple an implement as an old-fashioned plow stock, to give the foot and beam the proper angle; nor was it less an art to shape the point and properly harden it. There were high and low reputations in both domains.

The double shovel or two-footed plow made its advent even later than the turning plow. Made entirely of iron, except the handles, it was almost of necessity an importation, although it would not have been beyond the ability of some of our blacksmiths. Once a two-foot plow had been introduced, three-foot, four-foot, and five-foot plows followed as a matter of course. The bull tongue, although the home-made wooden stock was to a large extent displaced by one of iron, continued to hold a prominent place in our valley for the simple reason that it is the only plow capable of penetrating the rocky soils in which the valley abounds.

Let no one suppose that the turning plow, even though it was not in very general use before the coming of our railroad, was wholly an imported implement. On our farm, along with some imported plows, was a turning plow, still in use when I was half-grown, that was entirely of home manufacture, not only the wooden stock, but likewise the iron foot, the carved moldboard, and the plow point. I am bound, however, to acknowledge that the moldboard and the point were not as skillfully shaped as the factory products. The shop-made point nevertheless had one advantage over the cast-iron point; being of wrought iron, edged with steel, it could be sharpened and used over and over again. In fact, for a good many years we used mainly shop-made points on factory-made plows.

It was quite a matter of course that Big Creek, having acquired a railroad, with a commodious depot, two stores, a post office (housed in one small corner of one of the stores), and a church which did

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doubt that my father furnished the census taker with the requisite information. The ages of her family as recorded in the census of 1870 were: Charles, 65; Pamelia, 54; George M., 21; Shiloh, 19; and Wade, 12. Charles and Pamelia were both born in Virginia. Their values, as recorded by my father in the winter of 1864, were: Charles, $500; Milley, $1,200; George, $4,500; Shiloh, $4,000; and Wade, $2,000. These values were no doubt in Confederate currency. One of the list was valued at $5,500, 4 at $5,000, 5 at $4,500 (in one case with an infant "thrown in"), 5 at $4,000, and on down. Charles was at the bottom of the list in value, only two others falling below $1,000, one at $700, the other at $750.

double duty by serving also as a schoolhouse, would not be able to face either a smiling or a frowning world without a blacksmith shop. There was an excellent site for such a shop between the railroad and the public road, immediately west of the present railroad depot. There my father built a large blacksmith shop, capable of housing a dozen or more wagons. Indeed, as I shall presently point out, the shop was large enough to accommodate a considerable audience on occasion.

For a good many years the shop was operated by James McKay (pronounced McCoy), with the aid of his son Stephen, and later with some assistance from his son, Tom, some two years older than myself. Another son, James, was a tenant on our farm when it first came to have substance in my consciousness. For a few years the elder McKays, with their three daughters, Sarah, Josephine, and Lyde, and their boy Tom, lived in the house which our family had vacated for one that was beyond the reach of high water as the flood of 1867 had proved the old one was not. Later my father built them a house near the shop, on the site now occupied by the railroad depot. Actually, for a number of years that I can not now count Josephine lived in our home as general household assistant.

Altogether my contacts with the McKays were intimate and prolonged, one consequence of which was that I acquired a knowledge of signs and portents such as otherwise would doubtless have remained to me a closed book. Their minds were literally asquirm with beliefs that my mother sought to assure me were superstitions that had come down from the dark ages; but whencesoever the beliefs came, the McKays endeavored to live in conformity to their behests.[6] Likewise the language they used harked back to the days of Queen Elizabeth or maybe earlier. Others thereabouts used much of that ancient vocabulary, but only the McKays seemed to possess it in all its richness.

The blacksmith shop, when I was growing up, was one of the busiest scenes in the village, and not solely because of the extent and variety of work that was done there. In fact, it was almost as much of a social center as the circle around the store stove in winter or the store porch, with its collection of nail kegs, in summer. The shop even served on occasion as a sort of auditorium, particularly for such gatherings as might not be meet for the church, even though the church also maintained a secular character as schoolhouse. For instance, one of the earliest endeavors of the great outside world to bring light and the higher life to our benighted community (of late years the uplifters have been wont to bewail our "starved lives"), took the form of a sleight-of-hand show in the blacksmith shop. Among the stunts of the performer was that of frying eggs in a stovepipe hat without soiling the hat. (He must have furnished the hat himself). Next morning I uncovered the evidence that the eggs had actually been fried, for I found them lying on the shop floor. Then, to relieve my puzzlement, Sarah McKay whispered to me that she had fried the eggs herself before ever the performance began.

As a boy I was sometimes torn with doubt whether to choose the store or the blacksmith shop for the performance of my special function, that of silent auditor. At the store, where the coat tails were always more closely huddled together, usually half a dozen of my elders standing with their backs to the stove, coat tails parted, there was always a lively interchange, and though not all that was said was within my comprehension, I could learn a lot. At the shop, the topics of conversation were more often of things quite beyond my ken, but the language that prevailed there possessed to a more pronounced degree those elements of the ejaculatory and the staccato, qualities that were apt to carry the thrill of new discoveries.

Likewise the shop was nearly always a scene of activities that gripped my interest; for instance, the shoeing of horses and mules. It was really exciting to watch a fractious mule plunge and prance around, with old man McKay or son Steve astride the mule's hind leg and plunging and prancing with the mule. Sometimes they had to put the twisters on the frightened mule's nose before they could shoe him. That was tough on the mule, but it seldom failed to be persuasive. Then, there were lots of other things done there, in wood and

[6] To recite the examples that scramble amongst my memories would be tantamount to writing a chapter on superstition. One example, the latest in my catalog, will suffice. After the McKays had removed from our community to Marshall, North Carolina, Steve, probably then in his latter thirties, got married, and in due time there was a baby. Eager for information needful for his own guidance in the case, Steve plied the doctor with many questions, the answers to which the doctor afterward averred, were by no means all to be found in any of the books in his library. Then, as the doctor mounted his horse, Steve put to him one last question: "Say, Doc, d'you suppose it would hurt the baby for me to eat a mess of cabbage?"

iron, less exciting, to be sure, but all of absorbing interest.

The mending of wagons was, of course, a daily business, sometimes an exceedingly urgent business, as when the hay was in the shock, and the sky of the evening before had been gray and the morning sky had been red; as when the thresher was coming, and every wagon would be needed to haul up the wheat. It might be only a broken spoke or two to be replaced; it might be a tire to be cut and drawn ("shrunken"); or an entire wheel might need to be refilled—spokes, felloes, tire, and all to be renewed—all, that is, except the hub. Time was when the hub also would have been made nearby, but by the time I began to frequent the shop, hubs were brought on. In fact, it was the only part of the wagon that was not made locally. Broken tongues, axles, and hounds were among the most common accidents to wagons. In a period of years every part of a wagon, unless perhaps it was some of the lesser iron parts, little subject to wear or breakage, would probably have to be renewed. My uncle, Jefferson Burnett, told me in his old age that he still had the wagon with which he began farming as a young man—except that probably not a single piece of it, either wood or iron, was part of the original.

In quite a different category was a wagon that did service back in our mountains but was never exhibited in the valley. It was made entirely by hand and with not a particle of iron anywhere in its frame. The hand was that of Ed Kenyon, an Englishman by birth, but also a Confederate soldier. He was a man of some education and for a time was our school teacher. The pay of teachers in our county was at that time the munificent stipend of $12 a month, although it was supplemented by free board among the patrons of the school.

Having married and acquired two or three children, Ed presently took up his residence in the edge of the mountains where he hoped he could at least make a living. Needing a wagon and having no money with which to employ a professional wagon-maker or even to purchase any of the needed materials, he set about to make a wagon all by himself. The wagon he produced was of the earliest type known to human history; its wheels were sawed-off sections of logs. Ed took great pride in his wagon and became especially gleeful when he told about the tires with which he equipped it. These were white oak splits, bent around the wooden wheels and secured in place by wooden pins.[7]

It must have required an enormous amount of tar to enable that wagon to move, for tar was the great, if not the sole, dependence for axle grease. This calls to mind our chief dispenser of tar, "Uncle Billy" Madcap (his name was probably Metcalf). One of the most vivid scenes in the gallery of my early recollections is of the appearance of Uncle Billy at our back gate with his cart, bearing a barrel of tar and drawn by a small muley ox. I heard Uncle Billy's "Hello!" and I went out to see what was wanted. "You folks need any tare?" said Uncle Billy. I could not answer his inquiry of my own knowledge, but I would find out.

Meanwhile I did not fail to observe that not only the barrel and the wagon but likewise Uncle Billy's clothes and even his tufted beard were all smeared with tar. Many a time I had seen wagons greased with tar, usually with an admixture of lard. And I had also chewed many a quid of the hard flaked tar that was broken from the axle before the new tar was applied. I also retain acute memories of wagons lumbering down the road, creaking, squeaking, actually shrieking, all because of the need of fresh "tare" on their axles. It could not have been so long thereafter when axle grease became one of the commonest of the store commodities. I saw Uncle Billy many a time after that, but I never saw his complete outfit again; and Uncle Billy had no successor as a vendor of "tare."

To come back for a moment to our blacksmith shop, some of its products turned back the clock for a century or more. The common cornfield hoe, made in that shop and still in general use when I was given my first introduction to the cornfield, must have been of the early eighteenth-century type. It was when I was six years old (rather young for the business, you will no doubt opine), that is to say, some three years after the railroad had begun to tumble factory-made products in amongst us, that my father proudly (perhaps also

[7] A parallel case is that of the man who used wooden pins instead of nails in putting up the ceiling of his house. The pins were laboriously made with a pocket knife and driven into holes only less laboriously bored with a gimlet. How much time was consumed in these operations the man himself could never estimate, but it is a safe guess that an insignificant fraction of that time, say, not exceeding 2 days, spent as a "hand" on one of the valley farms would have procured him an order on the store for all the nails he needed.

hopefully) put into my hands a small light goose-necked hoe and bade me godspeed—although he used other language. It was, as I remember, the next summer that he turned over to me a plot of ground on which to do my godspeeding, which, being interpreted, is to say, a plot on which I might raise a crop of corn. He agreed to have the plowing done; but, brethren, if my witnesses had not all crossed over, I could prove that I raised a good crop of corn.

Perhaps the axe offers a better example than the hoe. The upsetting of axes, despite the importation of axes from afar, went steadily on for a good many years. What is more, as late as the mid-seventies, I occasionally saw an axe that was wholly shop-made. Home-made nails must have been in pretty general use, until the railroad began to pour in upon us cut nails of all sizes. They were as great an improvement over the old shop-made nails as wire nails were over the earlier cut nails. In two of the oldest buildings on our farm specimens of the old shop-made nails are still to be found. Our local blacksmiths once also made horseshoes, but never, I think, after the railroad brought the opportunity to obtain horseshoes from the factory.

I have spoken of our blacksmith shop as the scene of occasional entertainments. Sometimes, however, entertaining scenes were enacted there that were not only unscheduled but likewise unpredictable. For instance, into that shop one morning strode William Cannon Bryan (alias "Bill Punk"), barefooted as was his wont. Bill seldom cramped his style, or his feet, with shoes, and the natural soles of his feet, so it was asserted, were all of half an inch thick. Barely a second before Bill entered the doorway the clipped end of a horseshoe, red hot when it left the anvil, plumped down right in his path. All unaware, Bill planted one of his huge feet squarely upon the hot metal. Old man McKay and son Steve stood as though petrified, their hammers poised in mid air, their mouths wide open, dumfounded. Bill paused to offer the customary greeting: "Good morning, Uncle Jimmy. Good morning, Steve. How're you both this morning?" He stared in puzzlement for a moment at the frozen figures, then suddenly he let out a fierce yell and leaped toward the roof of the shop. By this time he knew well enough what had happened. Said old man McKay as he dug the piece of horseshoe from the hole it had burnt in Bill's foot: "Bill, I've smelt lots o' horse hoofs when I've clapped a hot shoe on 'em, but this hoof o' your'n out stinks any hoof I've ever shod." Bill's remarks have been variously quoted, but no one version of them has been definitely authenticated.

Although that particular shop, which served its day and generation so well and faithfully, has long since vanished, leaving not a wrack behind, the fires of its forge extinguished, its anvil no longer ringing out the chorus of its hammers, it has not been within the compass of the railroad's powers, even aided and abetted by the highway and its trucks, to banish entirely either the blacksmith or his shop. True it is that the smith and his smithy no longer have front seats in the rural picture as they once did. There are fewer horses to shoe, fewer wagons to make or mend, fewer plows to sharpen, while scores of things the blacksmith used to make are now bought over the counter or may even have passed from memory. Even so, notwithstanding the fact that the blacksmith has been pushed to an obscure seat in the back row, he still has his place in the picture, whereas nearly all his comrades in the great company of craftsmen that once all but dominated the village and the rural scene have been swallowed up by the factory, whose watchword is mass production and whose countersign is "sell it."

There were once cabinet workers, chair makers, basket makers, makers of measures of all kinds, such as the universal half bushel for the farmer and the toll dish for the miller, and of course coopers, both wet and dry (which is to say, tight and loose), who included among their productions such things as barrels, casks of every kind, washtubs, water buckets, water kegs, kraut stands, and piggins. Don't forget the piggin. You will probably never see one, unless in a museum. These are some of the wood crafts, but there were craftsmen in other lines, two of whom in particular, the cradle maker and the gunsmith, continued to serve their community after most of the others had vanished away.

One of the last of the expert coopers whom I may claim to have known personally was "Kyre" Franklin. (Puzzled over the name by which he was universally known, I dipped into the census records and discovered that his name was really Hezekiah.) He must have found his trade declining, for he took up his residence high up on Rich Mountain, on a tract of land belonging to my uncle, Jefferson Burnett, some 10 miles or more from the village of Big Creek. Or, like Daniel Boone, the

call of the wild may have been too strong for him to resist. However that may be, he continued to make cedar piggins of exquisite workmanship and beautiful to behold. My last definite recollection of Franklin was when he came down from the mountain bringing to my small sister a diminutive cedar piggin that was her most precious childhood possession.[8]

The piggin, as you should know, if you don't, is one of the most ancient household vessels made of wood. In different sizes it served a great variety of purposes for centuries, and there are still many purposes that it would well serve. There would seem to be no good reason why it should take fright at a railroad train and go hide itself, but so it seems to have done.[9] Other household utensils and implements have done likewise, and with as little reason. For the disappearance of the old-time scrub broom a good case can be established. Born of the puncheon floor, the scrub broom, when the railroad came along bringing a sawmill to replace the puncheon floor with plank, could but bow its once proud head and follow its parent to the woodyard, thence to the kitchen stove or to the fireplace.

One of the wood-working arts that had of necessity flourished in pre-railroad days and continued to flourish for several years thereafter was the art of stocking cradles, that is, the implement with which wheat was harvested until the reaper took complete, or nearly complete, command of the harvest field. The railroad did, in one of its early incautious ventures, endeavor to drive the cradle maker out of business, but it was an egregious failure. Some bumbleheaded manufacturer somewhere, who had no doubt seen a cradle but had not mastered its technique—the precisely requisite curves of snathe and fingers, the similarly precise angles and other niceties of adjustment, the delicacies of balance—manufactured a lot of cradles, and some of our storekeepers blundered into buying a goodly number of them. When the wheat was ripe for the harvest, old-time cradlers made a swipe or two with them, paused, fiercely looked the thing over, uttered a short but fervent prayer, and tossed it into the nearest fence corner. For a few years longer old cradles were repaired, some new ones were made, and then along came the reaper to send most of them to the joists of the barn loft or the tool shed, where some of them still hang, though encased in nearly three-quarters of a century of cobwebs and dust, with probably an addition of wasp and dirtdauber nests.

It is not quite true to say that good cradle stockers were born, not made, yet there were degrees of proficiency among those who practised the art.

[8] Kyre Franklin was not only a skilled craftsman, he also had the name of being "a mighty hunter before the Lord." Indeed one could scarcely live in the "big mountains" in those days without becoming a hunter of sorts, for, though big game, such as deer and bear, had become scarce, lesser game was abundant. Even "painters" made occasional visitations to the neighborhood of human habitations.

Of all the forest enemies, however, wolves were the worst, and Franklin acquired a great reputation as a wolf killer. Skillful in the imitation of the wolf's howl, he would take his stand on some high ridge and coax a wolf, sometimes two or three of them, to within range of his rifle and kill them. Once, however, his howl was answered so quickly by so huge a pack that he made haste to climb a tree. Soon he was surrounded by more wolves that he had bullets in his pouch. When he had shot the last of his bullets the score was even—one dead wolf for each bullet; but there were many live ones left, fiercely howling their exultation at having their enemy securely treed and were no doubt anticipating the feast in store. It was a "sit-down" strike which the wolf union seemed to think it was bound to win. But the man sitting in the tree had a better knowledge of wolf nature than the wolves sitting on the ground had of man nature. He merely outsat them, ever though he had to "sit up" all night and well into the next day. Franklin, for his part, averred that his imitation of the wolf's howl from that time forth was allowed to lapse into what President Cleveland once termed innocuous desuetude.

John Preston Arthur, in *Western North Carolina: A History* (Raleigh, 1914), 523, has related the following story of another great wolf hunter of the same period: "Wolves had greatly increased during the Civil War, and soon after its close the late Thomas Sutherland of Ashe County, with other cattle herders, hired the late Welborn Waters to kill all the wolves from White Top to the Roan Mountain. He would conceal himself in the wildest parts of the mountains and howl in imitation of a wolf. When the wolves which had heard him came, he shot them from his place of concealment. This soon exterminated the breed along the Tennessee line."

[9] The piggin's place in home life may in a manner be gauged by the following nursery rhyme, which was so much a commonplace amongst us that every small girl learned it almost as soon as she could lisp the lines and not infrequently made a public offering of it at the Friday afternoon school exhibition:

Some love piggins and some love pails,
But I love little boys with short shirt tails.

Reputed to be the best in all our region was Andrew Shell, father-in-law of George Brooks, the principal tenant on our farm. No one would ever have called Andy Shell a jack-of-all-trades, even though he did have several trades, for he was accounted an expert in more than one trade. He made looms, but he was proficient also in all kinds of blacksmith work. And, to top it all, he had the name of being the best gunsmith in the country.

There was a good deal of work for a gunsmith throughout the seventies and even well through the eighties, for the old-time muzzle-loading rifle, sometimes called the squirrel rifle, continued to be a favorite for squirrel and turkey hunting and even for shooting hogs and beeves, long after the introduction of the breech-loading gun, with its ready-made shells taking the place of powder horn, powder measure, bullet pouch, bullet moulds—and patching.[10] I don't think gun barrels were ever made by our local gunsmiths, but they often made everything else—wooden stock, hammer, and triggers (two of them). The proper stocking of a gun was said to call for very precise and skillful workmanship. But times changed, even if slowly, and eventually there were no more guns to be stocked. The loom and the cradle had gone over the hill to the poor house, and now the squirrel rifle went traipsing after them. Old man Shell turned to general blacksmithing—and did well at it.[11]

[10] It was not uncommon for a hunter to resort to his own clothing for bullet patching in an emergency. Indeed he sometimes made no other provision. His shirt tail would first be consumed, then the corners of his coat, if he wore a coat. I well remember once encountering the late Philip Cutshall, well covered with squirrels, but wearing also the skeletal remains of what had once been a Prince Albert coat. Of the tails barely the framework remained, and other parts of the coat within reach of his knife had likewise been sacrificed on the huntsman's altar. His shirt below his waist had entirely disappeared.

[11] One of the latest jobs that came to Shell as a gunsmith followed on the heels of a near tragedy. Swan Burnett asked Scot Westall to take his gun to Shell to be overhauled. "Load it for me," said Westall, "and maybe I can kill me a squirrel on the way." Swan, being an inveterate jokester, bethought him that an extra heavy charge of powder would give Westall a kick that he would not soon forget and give himself a good laugh when later he would gently ask Westall about it. The heavy charge of powder not only expelled the bullet (which, incidentally, killed the squirrel), but it also expelled the breech-pin, which broke a hole in Westall's skull. When Swan heard of the accident, he hurriedly sent a doctor to take care of the wounded man, but he also despatched a wagon load of provisions to the latter's family. Westall recovered, though he carried through life a great scar in his forehead.

The first attempt on our farm to supplant the cradle with a reaper was anything but a success. In the mid-seventies, I think it was, my father bought a harvesting machine the like of which I have not seen since. Likewise I have not been able to identify it among the several reapers thrust upon the market about that time. This was before the arrival of the twine binder, which was in 1880. The machine did not bind the wheat but only cut and laid it out ready to be bound by hand. I well remember my father's efforts to make the machine work satisfactorily, with results that were not merely disappointing but exasperating. Finally, in disgust, he drove the machine to the edge of the field, and there, I think, it rotted. He was obliged to call in a crew of cradlers and binders, probably from Grassy Fork, for it was thence that our extra harvesters generally came.

The earliest type of threshing machine within my own memory was the old horse-power affair. The horses went round and round in a circle, the driver standing on a platform at the center of the circle, where he did a lot of whip cracking and now and then gave a reluctant horse a touch of the whip lash, likewise sought to encourage the horses by word of mouth, which sometimes rose above the roar and rattle of the machine. Earlier than the horsepower machine so-called had been the tread mill contraption. Still earlier, as my father once explained to me in detail, the method of threshing employed had been to spread the wheat over a barn floor or other enclosure and make horses scamper about over it. It was necessary to keep buckets handy to save the wheat from wettings. This method was certainly as old as Abraham. For small threshings, as for instance, to obtain seed oats in the spring, the flail continued to be the main resort during my upbringing, and it is still occasionally employed.

If that old treadmill thresher that threshed our wheat one summer had survived to this present age, it would no doubt bring a high price as a museum piece. Even then the younger people looked upon it as an odd contraption. Its owner and preserver, who lived in the Grassy Fork section, prevailed upon my father to let him bring this relic of the

past from its long-time hiding place and thresh our wheat. The burden of his plea was, I think, neighborliness. It could not have been economy, for my father was more than normally endowed with practical common sense. Nevertheless, performance fell so far short of promise that in the end my father was brought to a state of mind that once would have called for sackcloth and ashes. The best the old thing could be induced to accomplish was 40 bushels a day, and, as there were more than 500 bushels to thresh, the threshing crew was "on us" more than two weeks. The labor bill gouged an enormous hole in that pile of wheat, and the board bill made another gaping hole. And don't forget that the machine did not separate the wheat from the chaff. That was an additional windmill operation (fanning mill to some of you). The straw had, of course, to be removed and stacked with pitchforks. As to that, however, the same was true of the other threshers that came our way. It was many years before a self-stacker showed itself on our side of the river.

This story of progress has, of course, an obverse phase, the stimulation of production for export. Far and away the most important business in which our valley became producer and exporter, instead of importer and consumer, was the marketing of its timber products. But there were other phases, only lesser by comparison, wherein we ranked among the producers rather than among the consumers.

One of our exports, not inconsiderable in quantity, was feathers, both duck and goose. To be sure, the community consumed a large proportion of its own feathers, for there was scarcely a family in the valley that did not deem it essential to have a thick mattress of feathers on every bed, particularly in winter, and pillows stuffed to the last possible handful. Now, lest some wayfaring man (or woman) should err, I would have all the world know that no chicken feathers were ever put into our beds or pillows. Not so much as the thought of such a thing would, I verily believe, ever have entered the mind of any woman on river, creek, or branch. To have perpetrated so unconscionable an offense would have meant a disgrace never to be lived down. It came to me, therefore, as a shock of surprise, when I entered Brown University and my chum and I acquired (for a price) the furniture of a dormitory room, to discover that our pillows were made of chicken feathers. Until then it had been a tenet of my faith that, in all matters pertaining to the higher life, New Englanders were far in advance of the benighted South. Now I knew better.

Beneath the feather tick might be, and usually was, a straw tick, and beneath that the interwoven cords of the bedstead. Slats were an innovation and far from an improvement. The bedstead most commonly in use was also much higher above the floor than is customary at the present time. That seemed to work wonderfully well for the Joneses and the Nicholses, who were seldom under 6 feet, but not so well for the Huffs, and Stokelys, and the Burnetts, who were, as a rule, more stockily built. As a boy I used occasionally to spend a night with a schoolmate, Stephen Huff, a year and a half older than I, and we always had to put a chair beside the bed in order to climb atop the feathers. But, once there, my! What a warm soft place it was.

That was usually in the late autumn, and by that time the straw tick had become somewhat flattened down, which reduced the climbing height by some inches. The straw ticks were always freshly filled immediately after the wheat was threshed and seldom filled again till the next harvest. Accordingly by late spring the straw beds had become rather severely compacted, and in some households they were said to have become a bit smelly. All this mattered very little, however, for there was always the feather bed atop it, with 8 or 10 inches of comforting softness. During my growing-up the wheat straw of the valley farms supplied not only the multitude of valley beds, but also the greater multitude of beds in the hills and mountains for miles around. As a rule a threshing machine had hardly pulled up from one setting to move to another, when a troop of straw seekers would come down out of the hills, sometimes with a rope to tie up a big bundle of straw, often with the very bed-tick itself. As a rule also there was no charge for straw for that purpose, although eventually the farmers took to making a nominal charge of 10 cents a tick.

To return to the topic of feathers. Everybody raised ducks, and nearly everybody kept geese—or tried to. Geese offered a problem that no one was ever quite able satisfactorily to solve. Geese were possessed of an ungovernable proneness always to go down stream, never to go up. They would float or paddle down the creek or river, pause to visit (preferably) a field of green wheat, fill their craws, journey a little farther down stream, seek

another field where a good feed could be obtained, then another spell of floating and paddling—unless meanwhile the owners overtook them and drove them back home. As our farm was at the mouth of the creek, it was a favorite port of call for both the upcreek geese and the upriver geese. The result was that we were bedeviled with everybody else's geese. It usually fell to my lot to chase them out of our wheat, and not infrequently I lost much sweetness of temper thereat.

Feathers were one of the perquisites of the distaff branch of the household. After the ducks and geese had been picked, the feathers were taken to the store to be exchanged for coffee, sugar, indigo, snuff, calico, domestic, bedticking, or what not. The feathers were carried to the store in a clean white sack; the storekeeper would weigh them, empty them into his feather bin, then weigh the empty sack, and pay the customer the difference. If, as occasionally happened, a good-sized flint rock plumped out with the feathers, the storekeeper calmly replaced the rock in the sack, weighed them, and deducted the combined weight of sack and rock from the gross. And the shrewd business woman went on her way home chuckling to herself that she had put a good one over on the storekeeper.

A like battle of wits sometimes took place in the case of butter, although in that exchange the farmer's wife might easily come off the winner—at least in the initial skirmish. The trick was to collect old salt from the meat table in the smokehouse and roll it up in a ball of butter. Sooner or later the storekeeper was pretty sure to discover whose old salt he had been buying at butter prices, so the next time that worthy sister brought him some butter, he secretly cut open the butter balls, scraped out the salt, and deducted its weight as tare. To be sure, similar devices might be worked the other way about, and, somewhere along the line of transfers, such things were done as putting sand in the brown sugar and barytes in the white sugar or in the flour; but tradition carries no such charge against any of our local storekeepers. In the case of eggs the storekeeper always fixed his prices to cover a certain percentage of eggs recovered from nests where the hen had not hatched her entire setting.

Then, there was the trade in berries, both blackberries and huckleberries, a business in which men, women and children, all had their parts. The volume of huckleberries in particular, in a good huckleberry year, was something to be reckoned with. They grew so abundantly in the mountains that the whole population of the valley and the hills could not possibly have gathered more than a fraction of them. Both blackberries and huckleberries were dried for the market, and there were people in Knoxville who made a business of gathering up the supplies from the country roundabout.

The best known garnerer in our region was A. David who gathered up not only dried berries but dried fruits of other kinds, chestnuts, hides, feathers, ginseng, and maybe other things. He was accustomed to ramble all through the mountain country, even over into North Carolina, collecting the specialties of his trade. He usually came into our valley from somewhere up the river, riding an old blind horse.

A. David was reliably reported to have made a clear $10,000 one season from dried berries alone. Of his profit in other lines I never heard an estimate, but he must have done a good business in chestnuts, hides, and what was called furs, although the latter consisted almost exclusively of possum skins. Riding through the mountains one could see one end of nearly every cabin and smokehouse covered with possum skins stretched out to dry. Cattle hides were generally plentiful for a peculiar reason. The price of cattle was so low that it was essential to carry them through the winter as cheaply as possible, which meant that almost their sole winter feed was wheat straw. Inevitably a good many of them had to be skinned before the winter had ended. Whether in jest or in earnest, it was a frequent comment that in the early spring the cattle adopted the practice of going for water in pairs, in order that they might lean against each other.

There was a time, a time long since passed, when the trade in chestnuts approached the proportions of big business in our valley, for there were thousands of acres where the chestnut tree abounded. Several times in my boyhood, always in the early spring, I assisted in driving cattle to my uncle's place on Rich Mountain, which snuggles in the lap of Max Patch Mountain. The road, then as now, climbed the western slope of Round Mountain, the most distinctive of the group of mountains thereabouts, and I could not help but observe that the whole mountainside was magnificently wooded, with chestnut trees predominating. Many of these trees were nothing short of huge. I particularly remember one tree, just off the road, that, to a height of 10 or 12 feet, was an immense "snurl"

(lexicographers please note), all of 15 feet in diameter. It looked as if the tree had been squashing down on itself for a century or more. Above the "snurl" the tree proper must have been 6 feet, or nearly so, in diameter.

Two other features of that mountainside have left an indelible impression. One was the beautiful, multicolored azaleas, commonly known as wild honeysuckle, that covered many acres of the mountain slopes. The other was the numerous small gorges clothed in soft mosses and magnificent ferns, with hidden streams gurgling just beneath the surface. Only where the excavation of the road gave them an outlet did the streams come out in the open. Another common sight in all the mountain country was the patches, small and large, of skeleton chestnut trees deadened in order to raise from that bit of soil a few bushels of corn for some family's bread. From the valley Round Mountain looks today much as it did seventy years ago, but the close-up scenes along that mountain road in these latter days brings one a heavy sense of desolation. The chestnut trees have gone to the acid plant, and trees of other kinds have gone to the sawmill, leaving the mountainsides clad only in a tangle of scrubby growths, having little of utility and less of beauty. Gone also, of course, are the wild azaleas, with their profusion of colors, that once draped the mountainsides in robes of exquisite beauty. The small gorges are still in evidence, for they belong to the ages, but their carpets of mosses and ferns have vanished, while the gurgling streams no longer gurgle, except briefly after a rainfall.

The business of gathering chestnuts, while the season lasted, would seem to have been the principal occupation of a good many people. And, sad to relate, some of them appeared to have been utterly wanting in a sense of responsibility. In order to facilitate their harvest they often set fire to the leaves that covered the fallen chestnuts, heedless of whither the fires might spread. Accordingly the autumn seldom escaped wide pread and devastating forest fires. The chestnuts were brought to the stores by the basketful, the sackful, or the wagon load.

Now, the chestnut is not only one of man's most delicious and nourishing natural foods, it is also a favorite among a certain species of worm, so that from the beginning to the end, there is an unending contest between man and worm as to which can "git thar fustest with the mostest" appetite. Time therefore was the essence of the chestnut business. The storekeeper was always eager to get his accumulations shipped out to market as quickly as possible, for he was rather ineffectually versed in the strategy of preservation whereby he might defeat his enemy, the worm. But the storekeeper never, I think, parted with his entire supply. He must needs keep a sufficiency for his regular customers of the vicinage and even for his customary loafers. For the storekeeper also reveled in those evening gatherings about his stove, probably none more so, unless it was the small boy who had been sent for a box of worm candy or a bottle of paregoric. To the said small boy, even if he must stand in the chillier air outside the circle of chestnut munchers that completely surrounded the stove, the scene was always inspiring and oftentimes profoundly instructive, and he seldom failed to get some downright fun before he skedaddled back home. As for instance, when one of the chestnut chompers chomped a big fat worm and hastily sought the spit box with a vigorous hawking and spitting. The boy could giggle over that all the way home.

Knoxville naturally became the principal market for the chestnuts of East Tennessee, and in those days East Tennessee must have been well out in front in the production of chestnuts. It was the heyday of monopolies, trusts, corners on this, that, and the other, and it so befell that the up and coming (at least the getting up and going to come) city of Knoxville had amongst her enterprising citizens one who had caught the vision of monopolizing the supply of chestnuts of East Tennessee and thus corner the chestnut market of the world.

And thereby hangs a tale, one of the saddest in the whole history of "corners," but one that afforded wicked heartless East Tennesseeans nevertheless many a belly laugh. It was not so much a contest between bulls and bears "on change," as between one "bull" and the lowly chestnut worm. The chestnuts were stored in a warehouse on that proud thoroughfare of the metropolis of East Tennessee known as Gay Street to await a rise in price, but the worms knew also how to add and multiply and presently so infested the sidewalk that the authorities peremptorily ordered the nuts removed. That was the beginning of the end. There was a succession of enforced removals, the last, I think, into the Tennessee River. The man

had lost to the worm, but the fish had won over both.[12]

I have spoken of ginseng, commonly known as "sang," as one of the considerable articles of trade in our valley in the post-railroad era. It was a curious business, one of the strangest in the annals of American trade, and, though it flourished throughout the Appalachian region for a century or more, people knew little of the reasons underlying it, except that the root was in great demand in China and sometimes brought fabulous prices. The whereforeness of that strangeness you will find set forth in many books. I am concerned here only with the contribution made by one small section of the Appalachians to the satisfaction, physical or spiritual, whichever it may have been, of those strange people on the other side of the world, inhabitants of the country called China.

A species of ginseng, we are told, has long been cultivated in China and Korea, and a slightly variant species was discovered near Montreal in Quebec as long ago as 1716. The famous William Byrd of Westover expatiated at length upon the supposed virtues of the herb, but his glowing account could not have incited the Western North Carolinians and East Tennesseeans to go to digging it, for there were no East Tennesseeans or Western North Carolinians in his day. It was probably the traveler André Michaux who first gave an impetus to the digging, for, when he journeyed through the Blue Ridge in 1794, he instructed the people there how to prepare the root for the Chinese market. The sang-digging business probably reached its peak in Western North Carolina and East Tennessee in the decade prior to the Civil War. It was in 1849 that Charles Lanman journeyed through that country and wrote his *Letters from the Alleghany Mountains*. On a journey from Asheville to Paint Rock he met a sang digger, who discoursed enthusiastically upon the beauties of the plant and the great demands for it in China.[13]

By the time that "Old Buncombe" came puffing up the French Broad River, offering better facilities for marketing the harvest of ginseng, as well as other products of the country, the business must have been on a decline, and there was nothing the railroad could do to stimulate its recovery. For once the mattocks got amongst the plants back in the mountain coves, the existing supply was rapidly exhausted, while dame nature was effectually estopped from providing for a new supply. Still, in my early boyhood there was scarcely a day when somebody did not appear at the store with a handful or more of the precious roots. The ginseng root was, therefore, tolerably familiar to me, but not the plant; not until one day when I was in one of the deep hollows of our woodland with George Brooks. Suddenly George exclaimed, "Here's some sang!" He dug up the plant, after he had shown me what it looked like, cut off the root and thrust it into his pocket. I do not recall how much he got for his sang root, but I do know that he was "tickled to death" to get back a lot of the nickels he had contributed to Chinese missions.

Probably the last time I ever saw a ginseng root brought to market was one day when a woman came down out of the mountains carrying a large root of sang in her hand. The finding of that root had evidently thrilled her, for it was generally supposed that not a single plant of ginseng had been left in all those mountains, and she had trudged several miles for the sole purpose of buying with it something for which she had an eager desire. Her first purchase was, I think, a tack of snuff (maybe two); her second was 2 yards of calico to make a coat for her small child. (Whether male or female I know not; but some people spoke of it as a "young 'un"—a term that will enable the knowing to supply details of the picture herein left unrecorded.)

Such a find as this has not, I think, been repeated this half century past, not in our part of the country at least. And much the same is true of every other region where once the ginseng plant throve. Great efforts have been made to cultivate the plant, but finding a foster mother that can take the place of bountiful mother nature has met with but indifferent success. There is at least one consolation for such a failure. The Chinaman doesn't need sang anyhow.

Meanwhile, nevertheless, in return for the manifold beneficences bestowed upon them by the great world beyond their mountain rim, the denizens of our valley have continued to bring offerings of the first fruits of their forests, such as generous mother nature still finds it possible to provide. For in-

[12] My principal informant respecting this episode is J. W. D. Stokely.

[13] Reprinted in *Adventures in the Wilds of the United States* (Philadelphia, 1856), 1:431–435. See also Arthur, *Western North Carolina: A History*, 523–524; and Forster Alexander Sondley *A History of Buncombe County, North Carolina* (Asheville, 1930), 1:439–440.

ward healing and comfort they have offered such medicinal roots and "yarbs" as lobelia, mayapple root, and (believe it or not) poison ivy. For the outward manifestations of joy, as in Christmas decorations, at marriage festivals, in shop windows, they have zealously gathered mistletoe from the great sycamore trees that line the banks of their streams,[14] the soft green moss that carpets the fallen trees bestrewn over the forest, the galax and the teaberry leaves scattered over every hillside—these and many more that have survived the blight of civilization, so-called, they offer for the cheer and consolation of those who are doomed to live starved lives in those desert areas called cities and towns. And they cease not the while to give thanks that their own lines have fallen in pleasant places, that theirs is a goodly heritage.

[14] Although I have included the mistletoe from our sycamore trees among our voluntary contributions to the spirit of Christmas, to speak solemn truth, as a historian should always do, it has not been wholly so. One instance to the contrary in particular, although it came to pass as long ago as the Christmas time of 1883, rankled in many bosoms for full half a century, and even down to this very day embitters every surviving memory of it. Along the banks of that little river formed by the junction of the two big creeks, even from that junction to the French Broad River, stood many magnificent sycamore trees, whose spreading white branches offered a winter scene of rare beauty. It would have been so had never a single bunch of mistletoe clustered amongst the limbs of those trees; but at the time of which I speak there was such a luxuriant and abundant growth of mistletoe as I have never elsewhere seen. The great white trees, with outstretched arms bearing their loads of rich green foliage, viewed from our home on the hill above, presented a scene of artistic beauty such as nature only in her noblest moods could produce.

One day in mid-December some men came up from Knoxville and, without so much as by your leave, proceeded to strip the trees of their armfuls of mistletoe, packed it in half a dozen big hogsheads, and marked them for shipment to Knoxville. Then, just as the hogsheads were about to be loaded aboard the car, came a message to the head man of the crew of despoilers. He turned to me (for I was station agent) and said, in a voice as if choked by a mouthful of green persimmons: "Don't ship it. They say they don't want no more mistletoe."

He may, for aught I know, have been one of Knoxville's rising young businessmen and have helped to lay the foundation of the city's prosperity, but for my part, as winter succeeded winter, whenever I have cast my eye upon the denuded sycamore trees, I have remembered him only as a ruthless despoiler, and my only consolation has been to pull down a copy of *Tristram Shandy*, clap my hand on the "cursing" chapter, cast my eyes to heaven and give testimony to the wrath that abides in me: "Them's my sentiments!"

THE LAND LAWS OF HONDURAS

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The agricultural republic of Honduras, situated in the heart of Central America, has some of the most liberal and progressive land laws to be found anywhere.[1] These laws recognize prescription, authorize the granting of land gratis to communities as *ejidos* or common lands and to individuals in family-size lots, and provide for the sale and lease of national lands at low prices.

There are four main reasons why these land laws are significant. Honduras lacks coal and iron but possesses extremely fertile soil. Consequently its past, present, and future material progress is posited on the development of agriculture. Nearly four and one-half centuries have passed since Columbus landed at Punta de Gracias in 1502, but only part of the land of Honduras has been divided and put under private ownership. Although the population increased over 115 percent between 1893 and 1930 and almost 77 percent from 1930

[1] The data in this article were obtained during the course of research in Honduras in 1941–1942. In this connection the author acknowledges with grateful appreciation the assistance of the Del Amo Travelling Fellowship in Political Science of the University of California and a United States Department of State Travel Grant.

to 1940, the total at the present time is only 1,200,542 and the density is only 20 per square mile.[2] The estimates on the amount of national land vary from 4 to 9 million acres, partly because large areas in the departments of Choluteca, Valle, and Cortés, as well as in the region around the port of San Pedro Sula, are still unsurveyed.[3] Practically the entire department of Colón, which includes most of undeveloped Mosquitia, is nationally held. This one area contains about 10,652 square miles or 6,817,280 acres.[4] As the total area of Honduras is approximately 59,160 square miles,[5] it is evident that from 23 to 30 percent of its land is still outside private hands.

Because the land laws now in effect in Honduras are based on a long and rich experience in agrarian legislation, a complete understanding and appreciation of them is contingent upon at least a cursory examination of earlier laws and decrees. Conveniently, the chronological and substantive periods coincide, so that it is possible to analyze the whole sweep of land legislation in terms of three periods: the colonial, 1502–1821; the republican-formative, 1821–1888; and the modern, 1888 to the present.

The Colonial Period. All colonial land legislation was concerned with three main purposes: the granting of free land to the conquistadors; the control and regulation of the land by the crown; and the protection of the Indians and their system of land tenure by regulating the adjoining Spanish holdings. Land was freely granted to conquistadors from 1513 to the early 1620s, but the regulation of land ownership did not become formalized until the middle of the seventeenth century. Throughout the early colonial period, numerous attempts were made to legislate a solution of the problem of the Indians and their land system.

The first general law for the division of land was issued in 1513 and restated in 1523, 1525, and 1596. There was no restriction on the acquisition of land by Spaniards for the law merely defined "*casas, solares, tierras, caballerías y peonías*" as the units of land measurement.[6] However, the definitions were so vague that they had no practical use or value.

In Honduras the process of *repartimiento*, under which grants of conquered territory assigned to Spanish soldiers included the right to exploit the labor of the natives living on or near the land, was early introduced and then legalized. The first instance was when Don Pedro de Alvarado founded the pueblo of San Pedro de Puerto de Caballos in July 1536 and ordered its division by villages among himself and 38 conquistadors.[7] Shortly the viceroys and the *regidores* or aldermen were empowered to grant land free to Spaniards who founded new pueblos and also to those desiring to reside in communities already established.[8] In 1754, the viceroys and the presidents or judges of the *audiencias* (high courts) were empowered to appoint *subdelegados* or deputy commissioners with special authority to handle land sales.[9]

From the beginning the Spanish crown attempted to maintain a strict legal surveillance over all lands granted.[10] By the opening of the eighteenth century this practice was greatly intensified and reached its climax shortly before the wars of independence. The laws of 1513, 1523, and 1525 contained the provision that full title would not be granted until a 4-year residence on the land was proved. A further restriction in 1525 disqualified Spaniards who had been granted land in one town from acquiring grants in other places unless they relinquished their rights in the first or fulfilled the 4-year residence requirement again. The enactments of 1523 and 1534 ordered a crown attorney to be present when the viceroys and *regidores* granted lands under the *repartimiento* system. To prevent grants from being made indiscriminately, it was ordered in 1563 that a written application had to be filed and submitted to the nearest *cabildo* or town council in the jurisdiction for examination and approval.

All lands given by *repartimiento* after 1536 were ordered to be planted to trees or cultivated within 3 months after granting under penalty of forfeiture of all proprietary rights. Those who engaged in

[2] Honduras, Dirección General de Estadística, *Resumen del censo general de población levantado el 24 de junio de 1945* (Tegucigalpa, 1947), 5.

[3] Information supplied by various government engineers and surveyors and by officials of the Ministerio de Fomento on Aug. 18, 1941.

[4] David Saavedra, *Bananas, Gold and Silver; oro y plata* (Tegucigalpa, 1935), 20.

[5] Honduras, Dirección General de Estadística, *Resumen del censo general . . . 1945*, p. 5.

[6] Antonio R. Vallejo, *Guía de agrimensores, o sea recopilación de leyes agrarias* (Tegucigalpa, 1911), 37–38.

[7] Spain, Archivo general de Indias, Seville, *Colección de documentos inéditos*, 15:20–30 (Madrid, 1871).

[8] Vallejo, *Guía de agrimensores*, 39–40.

[9] *Ibid.*, 72.

[10] *Ibid.*, 37–42.

cattle raising but owned lands easily irrigated were ordered in 1612 and 1624 to begin planting wheat.[11]

Beginning in the last quarter of the sixteenth century, innumerable regulations and restrictions with regard to titles emanated from Spain.[12] The first general order to examine titles came in 1578 when all viceroys and presidents of *audiencias* were empowered to check the legality of land titles in their jurisdictions and seize lands held illegally. The same procedure was restated and the powers incident thereto augmented and given punitive sanction in 1631. As early as 1589, the same officers were given power to revoke titles granted by *cabildos*. In 1646, the residence requirement for full title was raised to 10 years. While the *repartimiento* system remained in force, it was not possible after 1618 to acquire titles under prescription except in unusual circumstances and in no case without reference to the royal authority in Spain.

The royal decree of 1692, amended in 1735, increased the administrative machinery designed to ferret out illegal titles by naming a special committee with the power to appoint *subdelegados* in all districts to receive and examine land titles and other documents of ownership.[13] By 1754 the viceroys and presidents of the *audiencias* were permitted to authorize the *subdelegados* to examine all titles issued after 1700.[14] Detailed instructions were sent from Spain, but the regulation insisted upon most stringently was that all landholders must have legal titles.[15] This action brought a storm of protest from owners who complained of the methods used by the royal officials in measuring land. As a result a serious attempt was made in 1800 to set up a generalized procedure for surveying. However, like the earlier attempts of 1744 and 1782, the scheme was vague and doomed to failure.[16]

As the colonial period drew to a close, the system of using *subdelegados* for land administration bordered on disintegration. Due to the confusion of authority between local and Spanish agencies, they did not know which master to obey, and not knowing they obeyed neither. The lack of a uniform and satisfactory method of surveying also rendered land administration difficult. Following a final attempt at legal revision in 1793,[17] Spain was relieved of future worries about land control by the inauguration of the Central American independence movement.

The legislation on the Indian land tenure problem was more successful, because, as the aborigines were already established on the lands they wanted, the major consideration was protection of their rights. In a letter to the Council of the Indies in 1538, Hernán Cortés made the first suggestion that the Indians of Honduras should be allowed to retain their land and institutions if this did not conflict with Spanish needs.[18] A law passed in 1588 stipulated that in allotting lands no harm or injury should be done to the Indians. Six years later another law ordered the lands taken from Indian communities to be returned to them. As early as 1550 it was decreed that grazing lands should be located away from the Indians' fields so as to protect their crops, and later the distance was defined as ½ to 1½ leagues. If the Indians had lost so much land that they no longer possessed sufficient acreage for their crops, part of their lands were ordered to be returned.[19]

To protect the Indians in land sales officials of the *audiencias* were commanded to check the proposed transactions and give their approval.[20] In 1646, a general law stated that the government attorneys of the *audiencias* were to be the protectors of the Indians and that the viceroys and presidents of the *audiencias* were to give assistance. It was also ordered that the community property of the Indians was to remain undisturbed.[21] As these laws of the colonial period relating to Indian lands were not repealed or modified, they remained in force until independence was achieved.

The Republican-Formative Period. The agrarian legislation of the republican-formative period was mainly concerned with the benefits to the public treasury accruing through land sales and taxation, regulation of titles, resurveying, and granting of land in payment of public debts. While provisions with the avowed purpose of aiding and developing agriculture and increasing landownership by the distribution of free or low-cost lands are

[11] *Ibid.*, 42–44.
[12] *Ibid.*, 44–46, 48–49.
[13] *Ibid.*, 63, 64–70.
[14] *Ibid.*, 74. The first appointment under this decree was made for the district of Totonicapán in 1771. *Ibid.*, 81.
[15] *Ibid.*, 85–97.
[16] *Ibid.*, 99, 102–107, 120.
[17] *Ibid.*, 123–132.
[18] *Ibid.*, 9–10.
[19] *Ibid.*, 41–45, 52.
[20] *Ibid.*, 46–47. First decreed in 1531 and reaffirmed in 1615 and 1617.
[21] *Ibid.*, 47–48.

found on the statute books after 1829, not until the 1880s was a real effort made to improve agricultural conditions.

The first land law of the period was promulgated by the congress of Honduras on March 19, 1829.[22] It provided for the sale of former royal lands and assigned a scale of prices. The second article of this law limited land sales to 20 units per purchaser, but on April 26, 1834, in order to increase sales and augment treasury receipts, the assembly repealed this limitation and allowed each buyer 100 units.[23] The next year the assembly asserted that the low state of the treasury was due to failure to collect rents and taxes from lands and that unused lands, lands titled to deceased persons without heirs, and held without title belonged to the state and should, therefore, be either sold or rented by the state.[24] The ambiguities in the law caused its repeal within a year. The prices stipulated in the law ranged from 25 to 40 pesos per *caballería*. However, the *caballería* itself was an extremely vague unit of land measurement. As no careful surveying had been done anywhere in Honduras prior to 1830, a *caballería* varied from 200 to 700 acres. Instrument surveying revealed that the unit contained 110.9 acres, and as such it has come down to the present.

In an attempt to improve the administration of titles and to increase land sales, a new decree was passed in July 1836.[25] The price of land per *caballería* was reduced to 10 pesos. In the purported hope of securing additional revenue from land sales, the prices were raised in 1864 according to a scale ranging from 40 to 70 pesos.[26] As increased sales failed to materialize, the minimum price was lowered to 20 pesos per *caballería* in 1872.[27]

In 1837, a new principle was introduced in a law allowing the payment of state loans and salaries of officials with public lands, and this principle was restated and redefined in 1866.[28]

The vaguely outlined census tax of the colonial period was revised and defined in 1843, and all landowners were ordered to present their titles and pay the tax according to the levels fixed by the law. In 1846, the law was suspended for two years due to the economic suffering caused by a recent war. In the same year, the government offered to trace ownership and supply new titles to replace those lost for 4 reales per *caballería* exclusive of paper and writing costs.[29] In 1868, a special decree extended the tax to include the colony of Trujillo.[30]

A heavy tax of 4 pesos per tree was imposed in 1850 on the wood cut and exported from public or private land, but its severity led to its repeal the next year. The principle, however, was retained in the form of a sales tax (*alcabala*) which amounted to only 50 centavos per tree.[31] Even this sum proved difficult to collect, and in 1880 the law was completely revised with a view merely to ascertaining what individuals were cutting wood on national lands.[32]

In 1829 and again in 1835, it was stated that one of the purposes of land legislation was to effect a more satisfactory administration and to increase agricultural production in all branches. Also in 1835, concern for the poor who were unable to become landowners because of the high prices was expressed for the first time.[33] In the following year, individuals were encouraged to purchase land, and in addition societies were urged to take advantage of the state's land-selling program. This same law stated the principle of *ejidos* or community landownership and ordered 2 square leagues given free to each pueblo.[34] A more complete statement of acquisition, rights, obligations, and administrative procedure with regard to *ejidos*, however, was not issued until 1846.[35] This aspect of land reform was unfortunately repealed in 1854, and, while *ejidos* were still recognized, pueblos henceforth were required to pay for them.[36]

[22] *Gaceta del gobierno* (Tegucigalpa), Aug. 10, 1830, p. 21. The initial number of this first official publication of Honduras appeared on May 25, 1830, and only 13 numbers were printed, the last date being July 25, 1831. The author used a set in private hands in Tegucigalpa. There is a set in the Library of Congress, Washington, D. C.

[23] Vallejo, *Guía de agrimensores*, 151.

[24] *Ibid.*, 155, 158.

[25] *Ibid.*, 161–163.

[26] *Ibid.*, 190.

[27] *Ibid.*, 225.

[28] *Ibid.*, 177, 209–213.

[29] *Ibid.*, 179–181, 185–186.

[30] *Ibid.*, 219–220.

[31] *Ibid.*, 189–191.

[32] *Ibid.*, 233–234.

[33] *Gaceta del gobierno*, May 25, 1830, p. 2; Vallejo, *Guía de agrimensores*, 153, 155.

[34] *Ibid.*, 161, 164.

[35] *Ibid.*, 183.

[36] *Ibid.*, 193.

Happily, the original principle was reasserted in 1870 in a general land-division law,[37] and since this date the right to free community land from national sources in the form of *ejidos* has not been challenged.

Finally in 1872, the right of prescription was recognized. Farm laborers who went into unoccupied territory and established farms and lived and worked there for 3 years were to be *ipso facto* owners in the eyes of the law. While ownership was invariably guaranteed if the above conditions were fulfilled, the legal title could be obtained only through request to the intendants of hacienda (officials of the treasury department) who then secured the seal of the executive power.[38]

The Modern Period. Agrarian legislation entered a new and modern phase in 1888, when the first comprehensive agrarian law was promulgated.[39] One of the main features of this law was its definition of *baldíos* as land belonging to the state from which no rent or taxes were received. As the government was declared working in harmony with the development of agriculture, it, therefore, had the power to make grants of such land to individuals and pueblos. The centers (*cabeceras*) or most important municipal pueblos in each district were accordingly granted 2 square leagues each and the smaller communities 1 square league. The only cost incurred by the municipality in the acquisition of such *ejidos* was that of the sealed paper used and a small fee for measuring. *Baldíos* were also sold to individuals or communities by public auction, the prices ranging from 50 centavos per manzana for pasture lands to 1 peso per manzana for agricultural land. A fair and equitable system of resurveying lands and granting new titles was devised, modern methods of surveying were employed, and the owner was charged only 2 centavos per manzana for the service. The surveyors (*agrimensores*) were to have university degrees in science, and in the administration of their work no local authorities had the right to intervene, thus eliminating departmental and municipal political influence.

In 1898, the 1888 law was restated, modified, and improved.[40] The size of *ejidos* was lowered to 1 square league for *cabeceras* and to lots of 1 league in length and ½ league in width for smaller pueblos. However, if a pueblo needed *ejidos* but no national land was nearby, private land was ordered expropriated for that purpose. The cost of granting titles for *ejidos* remained low. Another important innovation permitted individuals to purchase that part of the *ejido* occupied by their houses and crops. In the sale of national land, differentiation in price was based on proximity to the sea, a navigable river or lake, an important city, a mining enterprise, or roads, the scale ranging from 40 centavos to 1.60 pesos, or about 20 to 80 cents, per acre. Lands strategically valuable to the state, such as those near lagoons, harbors, and islands, were protected from sale, as were the famous Mayan ruins at Copán.

A new and progressive feature ordered compulsory arbitration of all public and private boundary disputes. The conflicting parties were obligated to select one arbiter each. The two arbiters formed a court, heard testimony, and received evidence. If they could not arrive at a solution within 45 days of the time the hearings began, each incurred a 25 peso fine with an equivalent sum for each 15 additional days of continued failure to agree. In the event their views were irreconcilable, the state was empowered to appoint a third arbiter whose decision was final.

In 1902, further progressive additions were made.[41] Instead of waiting for individuals to solicit certain tracts of land before measuring them, the executive branch set a precedent by ordering all the lands in Tela surveyed in lots of 25, 50, and 100 hectares, or approximately 62, 125, and 250 acres. Lands granted were specified for agriculture only, and cultivation was ordered within 2 years after granting under threat of losing rights. Prescription was again recognized, and the individual was given 6 months in which to present a petition for a title. In 1909, an attempt was made to deny full ownership rights to individuals purchasing or receiving free national lands, but the decree was repealed two years later.[42]

In promulgating the 1924 agrarian law, the role of agriculture was held to be so vital to the nation's progress that the law was made part of the constitution.[43] A significant new feature asserted

[37] *Ibid.*, 223.
[38] *Ibid.*, 225–226.
[39] *Ibid.*, 235–257.
[40] *Ibid.*, 260–284.
[41] *Ibid.*, 287–289.
[42] *Ibid.*, 293, 295.
[43] Honduras, Congreso Nacional, *Boletín legislativo*, Nov. 10, 1924, p. 245; Honduras, *Decretos de la asamblea nacional constituyente y del congreso nacional legislativo de 1924*, Ley Agraria, Decreto 24, p. 87–96.

state subsoil rights. The earlier methods of acquisition of national lands—purchase, renting, and *ejido* grants—were restated. In addition, free donation of land in family lots was provided. For the purpose of sale, national lands were divided as to quality much the same as before with the price scale ranging from $2.80 to $14.00 per acre. The important innovation of family lots specified concise but liberal requisites for application. The 50 acres granted to each family was a free donation and was exempted from all municipal taxes. However, land was not allowed to be sold and could be transferred only by inheritance. To obtain full title, a house must have been constructed, at least half of the land cultivated, and a 10-year residence established.

Every pueblo with at least a hundred people and two schoolhouses was guaranteed land in *ejidos*. The principle of expropriation of private land when needed for *ejidos* was reasserted, and in addition the expropriation of *ejidos* of neighboring pueblos was recognized when the need was evident. It is significant to note that legal implementation of the principle of *ejido* beyond pious promise occurred in Honduras at least fifty years before it did in Mexico.[44] Prescription was modified to the extent that individuals occupying national land agriculturally or industrially in certain cases were ordered to make an arrangement with the state to either purchase the land or pay a small rental fee. Renting of freely selected portions of national land was guaranteed on liberal terms to both individuals and corporations. In addition, state rights adjacent to railroad zones were protected, the surveying of all lands was administered, controlled, and guaranteed by the state, and an office of colonization and immigration was created to augment the population. In this regard, in debating the agricultural problem in the congress in 1924, Representative Castañeda expressed his distrust of foreigners, especially large companies, and urged that they should be prohibited from purchasing national lands. His motion was the only dissent and was not given consideration.[45]

The legal weakness of the 1924 agrarian law was ably expressed by Representative Rivas in the congress on November 10, 1924 when he complained that the measure made no provision for the protection, conservation, exploitation, and administration of the national forests.[46] In 1928, the 1924 agrarian law was amended to exempt all agricultural workers renting, purchasing, or receiving free national land from compulsory military service and fiscal taxes. They were also allowed to import duty-free machines and tools for agriculture and cattle raising, gas and crude oil, dynamite, construction materials, blooded animals, seeds, insecticides, medicines, etc.[47]

In an executive decree in 1935, President Carías inaugurated his rural colonization plan, having as its object the intensification and improvement of agriculture through the introduction of desirable immigrant colonists. Its basic mechanism was the family-lot principle of 50-acre free donations, but added to this principle was the gratuitous supplying of tools, animals, seeds, etc., by the government as soon as the immigrants began a colony.[48]

The main embodiment of agrarian legislation currently in force in Honduras is to be found in the 1936 law.[49] Plutarco Múñoz P., one of the leading parliamentarians in the country and president of the congress, objected to maintaining the agrarian legislation as a constitutive law, asserting that it should reflect basic principles whereas the agricultural law was purely regulatory.[50] His objection was overruled, however, and the Ley Agraria remains a constitutive or organic act.

While in many ways the 1936 law is merely a copy of the law of 1924 and while the majority of its principles originated in nineteenth-century and earlier legislation, at the same time it is the most complete, liberal, and progressive agrarian law yet drawn up in Honduras. The right to acquire national land by purchase, prescription, family lots,

[44] In Honduras the *ejido* was legally recognized in 1836. Its administration was begun in 1846, and it has been an unchallenged principle of land law since 1870. In Mexico the decree of 1915 and article 27 of the 1917 constitution recognized the *ejido*, but the first law (Ley de Ejidos) attempting to regulate the principle in detail was not adopted until 1920. Eyler N. Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill, 1937), 81–82, 720.

[45] Honduras, Congreso Nacional, *Boletín legislativo*, Oct. 25, 1924, p. 204.

[46] *Ibid.*, Nov. 10, 1924, p. 245.

[47] Honduras, *Decretos del congreso nacional de 1928*, Decreto 42, p. 66–67.

[48] Honduras, *Plan de colonización rural*, p. 5–6.

[49] Honduras, *Constitución política y leyes constitutivas de 1936*, Ley Agraria, Decreto 5, p. 41–51.

[50] Honduras, *Boletín de la asamblea*, June 4, 1936, p. 9.

renting, and through *ejidos* was maintained. However, the sale of national lands was greatly liberalized.[51] The areas were graded in four categories, according to whether they were within 12 miles of a railroad or other means of communication, an important city, or an industrial enterprise, and whether the land was suitable for either cattle or agriculture, and the prices ranged from $1 to $4 per acre. Under the stipulations of purchase and according to the type of land available, the greater part of national land may be secured for $1 to $2 per acre.

In donating family lots only one important innovation was added. One-sixth of the 50 acres granted was ordered devoted to reforestation. The protection of forests was further implemented by requiring the departmental governor to administer the cutting of national woods and also by insisting that permission to cut any state-owned wood must first be obtained from the executive power. Those receiving family lots were warned that all rights would be lost if they did not start construction of a house and cultivation of crops within 1 year. *Ejidos* for the smaller pueblos were to be approved only if the two schoolhouses were either built or approved by the Dirección General del Ramo.

For the first time, specific prices were assigned for the renting of national land. The annual fee was set at 5 cents an acre for cultivated land and 20 cents an acre for uncultivated land. The amount allowed for renting was 250 acres for agriculture and 1,000 acres for cattle raising. However, persons or companies of considerable economic means with a project for establishing a large-scale agricultural, cattle raising, irrigation, or industrial enterprise were allowed 2,500 acres. The sale of national lands adjacent to ports, cities, pueblos, or in any other section where they might be necessary for public utility projects was prohibited. As in the 1924 act, the zones of railroad influence were meticulously circumscribed.

There has been only one legislative act since 1936 relating to agriculture. In 1939, the president was given power to employ an agricultural expert to study all aspects of agrarian law and agriculture with a view to suggesting improvements.[52]

[51] In the debate on the 1936 law it was asserted that the price of land was raised so high in 1924 that only the rich could buy. *Ibid.*, June 4, 1936, p. 10.

[52] Honduras, *Decretos del congreso nacional de 1938–1939*, Decreto 58, p. 67–68.

This brief analysis of the agrarian laws of Honduras, placing in historical perspective the liberal principles incorporated in existing land legislation, suggests two main and important conclusions.

The progressive institutions are irrevocably established. The laws have been liberally interpreted and administered and merit more than mere academic interest. While exact statistics are not available, a conservative estimate would indicate that at least 75 percent of all Hondurans are landowners; and the entire population, including the poorest elements, are definitely eligible for possession of national land suitable for agriculture and cattle raising. Formerly revolutionary activities periodically interrupted a deep-rooted respect for property among Hondurans, but upon cessation of such movements immediate consideration was given property damage claims and private land boundaries were reestablished. The relatively free election of 1924, the orderly election of 1928, and the inauguration of peace-loving President Tiburcio Carías Andino in 1932 lead to the conclusion that the political technique of revolution will be employed less frequently in the future than in the past. Individual landownership has been a cohesive social force even during the turbulent past history of Honduras and at the present time forms the basis for stable political organization.

The agrarian laws will command a significant role in the future development of agriculture in Honduras. All the natural requisites for a prosperous agricultural development are existent. With the introduction of more modern machinery and the adoption of scientific methods, plus increasing and improving communication and transportation facilities that are effecting the building up of a ready export market, agriculture in Honduras will undoubtedly expand rapidly. These problems, which have been striking deterrents to progress in the past, are now being met and solved by the present governmental administration. With large-scale agricultural development, the great supplies of national land, efficiently and fairly administered, will be sufficient for allowing the expansion of individual holdings as well as supplying incoming colonists and land companies with the acreage needed for their purposes.

AGRICULTURAL COLONIZATION AND IMMIGRATION IN VENEZUELA, 1810–1860

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The Venezuelan struggle for independence which began in 1811 and culminated in 1823 resulted in the abandonment of many farms and in the cessation of the little immigration that had been taking place. These factors persisted for a considerable time and perhaps had some effect on the Venezuelan economy even down to the present day.

The movement for independence first took definite shape under the leadership of Francisco de Miranda who spent some time in the United States attempting to raise men and money to liberate Venezuela. In 1806 he sailed from New York with 200 men, landed near Coro, and tried to rally the people to his cause, but the expedition was a complete failure. Five years later, on July 5, 1811, a Venezuelan congress meeting at Caracas declared independence. In less than a year, on March 26, 1812, an earthquake destroyed Caracas and other patriot towns, killing many partisans of the independence movement. The priests called this disaster a vengeance of God, and the fears of the people, combined with military defeats, again brought the revolution to a temporary halt.

Simón Bolívar replaced Miranda, who later died in a Spanish prison, as the leader of the movement and carried on the war with alternating successes and defeats until decisive victories in 1821 and 1823 established the independence of Venezuela and Colombia. The two countries joined together under the presidency of Bolívar late in 1821.

It is obvious that a war of such length, raging as it did back and forth over most of the populated areas of the country, would have an adverse effect upon agriculture and would tend to diminish the population. Such was particularly true in this case. Bolívar issued a proclamation calling for "War to the Death" in 1814 which continued in effect until 1821. During this period, both sides indulged in the virtual slaughter of war prisoners and civilians alike.[1]

Various estimates were made of the population of Venezuela shortly after the war. Although the figures are estimates and vary considerably, they all show a decline from the estimates of the population just prior to the war. Alexander von Humboldt estimated that the population totaled 802,100 in 1810 and 785,000 in 1825.[2] The revolutionary government placed the population at 1,000,000 in 1811,[3] a considerable contrast with Agustín Codazzi's estimate of 710,633 for 1825.[4] As the Venezuelan Dirección General de Estadística stated in 1940, it is now very difficult to determine which of the many estimates is more nearly correct. However, in setting up a table of "probable" populations for different years, the Dirección General de Estadística adopted Humboldt's estimate of 785,000 for 1825 to use with their own estimate of 900,000 for 1810.[5]

Naturally, there was little or no agricultural immigration during the years of the revolution. A group of English, Scotch, Irish, and Hannoverian soldiers were recruited by the representative of the revolutionary government in London, López Méndez, and sent to Venezuela where they played a considerable part in some of the patriot victories. It has been estimated that as many as 9,000 legionaries entered Venezuela and New Granada during the war, but this figure may be exag-

[1] Alfred Hasbrouck, "The Movements for Independence in Northern South America," in *Colonial Hispanic America* (*Studies in Hispanic American Affairs*, edited by A. Curtis Wilgus, v. 4, Washington, 1936), 462; Herman A. Schumacher, *Südamerikanische Studien; Drei Lebens- und Cultur-Bilder; Mütis, Caldas, Codazzi, 1760–1860* (Berlin, 1884), 315.

[2] Venezuela, Ministerio de Fomento, Dirección General de Estadística, *Sexto censo de población*, 1936 (Caracas, 1940), 3:7.

[3] This estimate was reported by Baptis Irvine, special agent of the United States to Venezuela, 1818–1819. Baptis Irvine to John Q. Adams, Sept. 23, 1819, Special Agents Series, Venezuela, Series, despatches, instructions, and other United States Department of State records cited are now in the custody of the National Archives, Washington, D. C.

[4] Agustín Codazzi, *Resúmen de la geografía de Venezuela* (Paris, 1841), 244.

[5] Venezuela, *Sexto censo de población*, 1936, 3:7–8.

gerated.[6] At any rate, very few of those who survived the campaigns appear to have remained in the country as farmers.

In addition to enrolling legionaries, the Venezuelan representatives in England purchased supplies and sold land. Several sales of islands and of large tracts were made before 1819. For example, one Mr. Miller, representing certain English and Irish benevolent societies, petitioned the Venezuelan Congress for an enormous grant of land in Guayana to be cultivated by immigrants from England and Ireland. He proposed that the colonists have a local government, with an assembly of their own, subordinate to the general government of Venezuela.[7] However, none of the grants made in this period had any practical results in the development of agriculture or of agricultural colonization.

The general decline in agriculture and the abandonment of farm lands as a result of the wars was noticeable to contemporary travelers. Francis Hall pointed out that Venezuela had been underpopulated before the war, but by 1825 the fertile provinces of Guayana, Cumana, and Barcelona were almost abandoned, and the formerly flourishing towns and villages of the plains were reduced to a grass-grown wretchedness.[8] John Hawkshaw reported that signs of destruction and decay were visible in both towns and country. Farms and cultivated estates were going back to a state of nature, and weeds and rank vegetation were covering up what once were scenes of productiveness and prosperity.[9]

Much of the hacienda agriculture such as that of the Valencia Lake basin, dependent on slave or serf labor, broke down when laws providing for the gradual abolition of slavery were passed. It was rebuilt to a degree only after a period of years.[10] Grazing also suffered. It is estimated that the cattle population of Venzuela dropped from 4,500,000 head in 1812 to 256,000 in 1823.[11]

The hacienda agriculture of the llanos or extensive plains country was particularly affected by the war. One reason is that the *llaneros* or plainsmen took an active part in the war, first fighting for the royalists under José Tomás Boves, then for the republicans under José Antonio Páez. This activity is usually ascribed to the aggressive spirit of the *llaneros* and a desire for loot and excitement. They were ready to follow any leader, royalist or republican, who captured their imaginations and promised them glory and gain.[12] On the other hand, recent studies of Venezuelan land problems indicate that Boves and Páez were able to win the *llaneros* to their opposing standards by promising them that the large estates so prevalent in Venezuela would be confiscated and the land distributed. Bolívar endorsed Páez's promise and sought to set up a plan of land distribution but without success.[13]

Another reason for the notable decline in the llanos was a current of emigration to the coast and to the western highlands. Many of the older families left Barinas and the other llanos provinces for the highlands because the provinces of Mérida and Táchira had been less affected by the war. Besides, the breakdown of the hacienda type of agriculture in the llanos and the closing of the free markets of Spain to plantation products made for an economic instability which favored migration.[14]

The first of a series of laws to promote immigration was introduced soon after legislative machinery was set up. On June 7, 1823, the Colombian legislature, which included representatives of both Colombia and Venezuela, passed

[6] Hasbrouck, "The Movements for Independence in Northern South America," 471–472. For a fuller account, see the same author's *Foreign Legionaries in the Liberation of Spanish South America* (New York, 1928). Several of these legionaries published their reminiscences of the campaigns and of Venezuela.

[7] Baptis Irvine to John Q. Adams, Sept. 25, 1819, Special Agents Series, Venezuela.

[8] Francis Hall, *Colombia: Its Present State* . . . (ed. 2, London, 1827), 10.

[9] John Hawkshaw, *Reminiscences of South America from Two and a Half Years' Residence in Venezuela* (London, 1838), 38.

[10] Raymond E. Crist and Carlos E. Chardon, "Changing Patterns of Land Use in the Valencia Lake Basin of Venezuela," *Geographical Review*, 31:434 (1941).

[11] Raymond E. Crist, *Étude géographique des llanos du Venezuela occidental* (Grenoble, 1937), 144.

[12] Hasbrouck, "The Movements for Independence in Northern South America," 463, 467–468.

[13] Raymond E. Crist, "Land Tenure Problems in Venezuela," *American Journal of Economics and Sociology*, 1:145–146 (1942); Carlos Irazábal, *Hacia la democracia; Contribución al estudio de la historia económico-político-social de Venezuela* (Mexico, 1939), 85, 111–113.

[14] Crist, *Étude géographique des llanos*, 170–171; Francis Hall [supposed author], *Letters Written from Colombia during a Journey from Caracas to Bogota and thence to Santa Martha in 1823* (London, 1824), 45, 47.

an immigration law providing that the executive power was to promote immigration and could dispose of state lands in furthering this project. The area of land which might be granted was limited to 200 *fanegas* (410 acres according to Hall's figure, but perhaps somewhat less) to a family.[15] Vice President Francisco de Paula Santander, who had signed the law, issued a decree implementing it on June 18, 1823. Unfortunately, the decree was confusing because it left doubtful the distinction to be made between selling the land and giving it to immigrants.[16]

Late in 1823, the Venezuelan government entered into a colonization contract with Messrs. Herring, Graham, and Powles, merchants of London and "long tried friends and supporters of Colombia." The contract granted 200,000 *fanegas* of uncultivated land in the provinces of Mérida, Caracas, and Choco and provided several privileges for the settlers who might be sent. They were exempted from military service, except as militia, for 10 years, from duties on all clothing imported for their use (agricultural implements were already free of duty), from direct contributions and ecclesiastical tithes for 6 years, and from all export duties on produce they raised for 6 years. They were not to be molested in any way on account of their religious beliefs.[17] Judging from figures on immigration, this contract remained entirely ineffectual.

Venezuela and Colombia were receiving a certain amount of publicity in England and the United States during this period. However, the newspaper accounts were mainly concerned with the war of independence, recognition of the new republics, and the efforts which might be made by the Holy Alliance to bring the revolted colonies once again under Spain's control. Most of the books dealt with the same subjects, being reminiscences of legionaries and travel accounts.[18]

One of the few volumes dealing directly with problems of immigration was *Colombia: Its Present State, in Respect of Climate, Soil, Productions, Population, Government, Commerce, Revenue, Manufactures, Arts, Literature, Manners, Education, and Inducements to Emigration* by Francis Hall. The first edition was published at Philadelphia in 1825; the second in London in 1827. The volume was based upon travel and a short residence in Venezuela during which the author apparently applied himself to a close study of the country. It gains added repute in that the author was not personally interested in any particular emigration scheme.[19] Hall believed that Colombia and Venezuela offered many advantages for immigrants, but he also pointed out the disadvantages and warned of diseases, especially goiter in the highlands and fevers in the lowlands. However, he stated that the natural advantages of Colombia for immigrants exceeded those of the United States.[20] Settlers were advised to go elsewhere than to the province of Caracas in spite of its natural advantages. There was less unoccupied land in that province, some of the land was exhausted, and the titles to most estates were so clouded that a foreign purchaser would become involved in endless litigation.[21]

Hall also warned the immigrant that, although Colombians realized their need for settlers, they might not give the newcomer the active and benevolent assistance for which he might hope. Idleness was the predominant propensity of all the native classes, but they might still be jealous of a foreigner taking advantage of opportunities they had neglected.[22] This undertone of jealousy and distrust of foreigners, mixed with the feeling that the immigrants were being given advantages denied the natives, is to be found in varying degrees throughout the history of agricultural immigration in Venezuela.

Venezuela broke away from Bolívar's leadership in 1830, declared its independence of Colombia, and elected José Antonio Páez president. Nevertheless, that immigration was still recognized as a pressing problem is shown by the law, effective June 13, 1831, passed by the new Venezuelan congress to promote the immigration of Canary Islanders.[23]

[15] Hall, *Colombia*, 74–76.
[16] *Ibid.*, 76–79.
[17] *Ibid.*, 153–154.
[18] For example, see G. D. Flinter, *A History of the Revolution of Caracas* (London, 1819); Gustavus Hippisley, *A Narrative of the Expedition to the Rivers Orinoco and Apuré, in South America* . . . (London, 1819); and William Duane, *A Visit to Colombia, in the Years 1822 and 1823, by La Guayra and Caracas, over the Cordillera to Bogota, and thence by the Magdalena to Cartagena* (Philadelphia, 1826).
[19] Hall, *Colombia*, v–vi.
[20] *Ibid.*, 73, 115–136.
[21] *Ibid.*, 103.
[22] *Ibid.*, 36–37, 83.
[23] Venezuela, *Recopilación de leyes y decretos de Venezuela* (Caracas, 1874), 1:116.

The law stated that the small population of the country was not in proportion to its vast extent; that this state of depopulation impeded progress; that the immigration of suitable foreigners was necessary; and that Canary Islanders, because of similar religion, language, customs, and general reputation for work and economy, seemed best suited as immigrants. It was therefore decreed that the executive power was to use all possible means to promote such immigration. The Canary Islanders were to be considered as naturalized immediately and were to be exempt from the armed forces and from all direct assessments on their farms for 10 years. The executive power was to grant to each single individual or head of a family as much unclaimed public land as he could and would cultivate. Substance was given this law by an appropriation of 15,000 pesos on March 7, 1834, to be used in furthering the immigration of Canary Islanders.[24]

Probably because of the influence of these laws, a trickle of immigrants, mostly Canary Islanders, began to enter the country through the port of La Guaira. Five entered in 1832, 122 in 1833, and 455 in 1834.[25] Immigration then apparently ceased for a couple of years, probably because of the outbreak of a revolution.

Meanwhile, agriculture had been undergoing a revival. It is estimated that there were 2,437,000 head of cattle in Venezuela in 1833 and 4,617,000 in 1839.[26] The American chargé d'affaires in Caracas reported that, in addition to the three great export staples of the country, coffee, indigo, and cacao, cotton was becoming an important article in agriculture.[27] Cotton was assuming this place because it seemed peculiarly adapted to the half-slave and half-free labor conditions in the country. However, transportation was so difficult and expensive, being mainly by pack animals, that a slight decline in the world price of cotton would make its production unprofitable and bring about a considerable decrease in the acreage. Some of the credit for the agricultural revival is due to the activities of the Sociedad Económica de Amigos del Pais, established on March 18, 1826. This group imported Surinam cottonseed for distribution after experiments had shown it could be cultivated successfully in Venezuela, distributed seed wheat, published pamphlets on tobacco, cacao, and coffee, and carried on other activities to benefit agriculture.[28]

An English mining engineer, resident in Venezuela from 1832 to 1834, remarked that labor was still lacking and that during his residence a large quantity of tobacco was lost in the Barinas area because of the impossibility of getting persons to cut it. He, too, noted the prevailing jealousy of foreigners.[29]

On May 19, 1837, the concessions previously granted to Canary Islanders were extended by law to all Europeans who wished to enter the country to engage in agriculture or other useful enterprises. Contractors were to be granted 10 to 30 pesos for each immigrant brought in, and the immigrants' equipment was to be free of import duty. Each immigrant was to receive up to 3 *fanegadas* of land and was to be given title to it after 4 years, if it had been planted with certain crops. The concessions were the same whether the immigrants came independently or under contract.[30] However, since a *fanagada* of land in Venezuela is usually considered equivalent to 1.73 acres (it may have been slightly more at that time) it would appear that the immigrant was being offered only a subsistence plot. In a country where plantation agriculture and grazing are the prevailing systems, some 5 acres of land is not a princely estate.

In 1837, 97 Canary Islanders entered Venezuela and in 1838, 72 Frenchmen and 604 Canary Islanders. The Secretary of the Interior and Justice in his 1839 annual report stated that immigration continued to be very limited because the law of 1837 was inadequate. He felt that the concessions would have to be made effective and greater before the program would work.[31] In 1839, 475 persons entered Venezuela and in 1840, 827. The Secretary of the Interior and Justice repeated his arguments against the 1837 law in his 1840 report. He

[24] *Ibid.*, 1:166.

[25] Francisco González Guinán, *Historia contemporánea de Venezuela* (Caracas, 1910), 3:191. Figures given by this author are taken from official reports. It has been suggested that there was a tendency on the part of government officials to exaggerate the immigration figures. Venezuela Instituto Técnico de Immigración y Colonización, *Memoria*, 1940, p. 9–10.

[26] Crist, *Etude géographique des llanos*, 144.

[27] J. G. A. Williamson to John Forsyth, Oct. 8, 1836, Diplomatic Despatches, Venezuela.

[28] Robert Moll, "Lecciones de economía venezolana," *Revista de Fomento*, 5(51–52):144–145 (1943).

[29] Hawkshaw, *Reminiscences*, 205, 211.

[30] Venezuela, *Recopilación*, 1:384–385.

[31] González Guinán, *Historia contemporánea*, 3:85, 191.

pointed out that some of the Canary Islanders had re-embarked and the others were not interested in taking the concessions offered in the law of 1837.[32]

Even though there was little immigration, Venezuela's population steadily increased during her first decade as an independent nation. Agustín Codazzi, an Italian geographer who spent a considerable part of his life in Venezuela and Colombia, estimated the population of Venezuela to be 945,348 persons in 1839. He divided this total into the following groups: independent Indians, 52,415, or 6 percent; partially civilized Indians, 14,000, or 1½ percent; civilized Indians, 155,000, or 16½ percent; white Hispanic-Americans and foreigners, 260,000, or 28 percent; mixed races, 414,151, or 43 percent; and slaves, 49,782, or 5 percent.[33] It must be remembered that these figures are estimates in spite of their appearance of exactness.

Codazzi estimated that the population was engaged in the main branches of economic activity in the following numbers (disregarding the independent Indians who did not enter directly into the economic life of the nation): 412,489, or 44 percent in agriculture; 244,976, or 28 percent in the livestock industry; and 235,468, or 28 percent in commerce, the arts, etc.[34] Of those engaged in commerce, the professions, and like occupations, a considerable proportion were dependent, at least indirectly, on agriculture and the livestock industry.

More than 68 percent of Venezuela's land was unclaimed. Of this, 54 percent was wooded, 5 percent was in the pastoral zone, and 41 percent was in the agricultural zone. It should be noted that 79 percent of this unclaimed land was in the Guayana region. Of the claimed land, 34 percent was in the agricultural zone and 64 percent in the pastoral zone. Yet of all this land, only 49 square leagues or a little over 0.1 percent of Venezuela's area was under cultivation. On the other hand, 500 square leagues or 1 percent of the total area had been cultivated at some time and then abandoned. Over 25 percent of the cultivated and abandoned land was in the province of Caracas, and a large part of the remainder was in other parts of the northern highlands and associated lowlands. Over 10 percent was in the province of Barinas, long famous for its tobacco.[35]

It is then evident that Venezuela, except in a few small areas, still had a vast surplus of land. Some of it was tied up through colonial grants and in other ways, but much still belonged to the nation. Unfortunately, some of the best land so far as climate and transportation were concerned was claimed by individuals and not used productively.

The shortage was in population, particularly in a laboring and a farming class. Allan A. Hall, American chargé d'affaires at Caracas, reported to the Secretary of State in 1842 that the scarcity of laborers was incalculably retarding the development of the wonderful natural resources of Venezuela. He also commented that the government had a project under way for the introduction of 30,000 German immigrants.[36]

A new immigration law of May 12, 1840 elaborated somewhat on the previous law.[37] The vice president supplemented this law by a decree issued on August 27, 1840. The sum of 25,000 pesos was appropriated for encouraging immigration, and the country was divided into three main districts, each with an organization charged with promoting immigration. They were set up in Cumaná, Caracas, and Maracaibo, and detailed regulations under which they were to function were set forth.[38] The main emphasis at this time, however, was on contract immigration. Andrés Anthoine agreed to bring in a number of Spanish immigrants, not less than 200 nor more than 600, to found a settlement at the site of Palmasola in the jurisdiction of Morón parish of Puerto Cabello. Colonel Carlos L. Castelli contracted to bring from 300 to 500 Italian and German immigrants through La Guaira and Puerto Cabello. Clemente Fonseca agreed to bring in 300 Canary Islanders through Carabobo. Bishop José Manuel Alegría contracted to bring a group of priests from Europe. Colonel Agustín Codazzi, the Italian geographer whose work has been previously mentioned, proposed to bring 60 to 80 German families to Venezuela.[39] Other similar contracts were also made.

In 1841, there was a considerable increase in the

[32] *Ibid.*, 133, 191.

[33] Codazzi, *Resúmen de la geografía de Venezuela*, 241.

[34] *Ibid.*, 171.

[35] *Ibid.*, 61, 347.

[36] Allan A. Hall to Daniel Webster, Mar. 1, 1842, Diplomatic Despatches, Venezuela.

[37] Venezuela, *Recopilación*, 1:582–585.

[38] González Guinán, *Historia contemporánea*, 3:154.

[39] *Ibid.*, 3:241–242.

number of immigrants entering Venezuela, a total of 3,776. In 1842 the number fell to 1,627.[40] In his annual report for 1843, the Secretary of the Interior and Justice reported 2,262 immigrants. Of these, 1,752 had come under contracts and the others through individual efforts. Among the contractors carrying on the work were Messrs. Azpurúa y Compañía, who brought in 700 immigrants through Puerto Cabello; Clemente Fonseca, who brought in 382 through the same port; Diego Guevara, who brought in 79 through Carupano; and Codazzi, who brought in 374 through Choroni to form Colonia Tovar on the upper reaches of the Tuy River, west of Caracas and north of La Victoria. It was the only Venezuelan agricultural colony settled by immigrants in the nineteenth century that has survived to the present time.[41] The immigration of priests was suspended during the year 1843.[42]

In 1844, 1,365 immigrants, all Canary Islanders, entered Venezuela. The Secretary of the Interior and Justice estimated that Venezuela had 1,218,716 inhabitants in 1844.[43] During 1845, immigration continued to decline, only 429 persons entering the country in that year. The Secretary of the Interior and Justice ascribed the decline to circulation abroad of stories of disease in Venezuela and to Spanish opposition to the emigration of Canary Islanders.[44]

A new immigration law of May 24, 1845, like previous enactments on the subject, stated that immigration was to be encouraged. Stress was placed upon the grants of land and money to be given contractors who brought in immigrants.[45]

About this time some interest in emigration to Venezuela was aroused in England. W. P. Chandler, American consul at Puerto Cabello, reported on September 5, 1845, that companies were in operation for the introduction of English emigrants in large numbers and that "many of that class most beneficial to a country" were arriving daily.[46] Judging from the immigration figures this report is misleading. On the other hand, a London publisher brought out a 192-page book in 1846 entitled *Tropical Information; a Treatise on the History, Climate, Soil, Production, Manufactures, Commerce, Political Institutions, Social Manners and Customs, and the Physical and Natural Advantages and Disadvantages of Venezuela . . . Collected from all the Best and most Authentic Sources of Information Now Extant*, which would indicate some English interest in the subject, and two groups actually attempted to form settlements.

The two groups were sponsored by a society established in London. The unfortunate lot of the first group is revealed in the 1846 report of the Venezuelan Secretary of the Interior and Justice. The colony was established on the coast of "Guiria in a place called Guarimita." The colonists were shortly attacked by fevers, many of them died, and the remainder moved to Trinidad.[47] The second group purchased land near Chaguaramas on the Gulf of Paria but remained only a short time and then followed the first group to Trinidad.[48]

Perhaps such results as this helped bring about Venezuela's reputation for being unhealthy. The revolutionary disturbances of the period may also have discouraged immigration. At any rate, there was little or none recorded for several years in spite of continued governmental efforts to encourage it.

These efforts took varied forms. An immigration society was established in Caracas on August 10, 1847, by a resolution of the Secretary of the Interior and Justice. The society was placed under the direction of Manuel Felipe de Tovar, Esteban Herrera, Wenceslao Urrutia, Francisco J. Madriz, and Juan B. Calcaño. The consuls of Venezuela in the United States were directed by another resolution to promote a certain class of German emigration to Venezuela. A contract was made with Carlos Francisco de Culhat, an associate of the mercantile firm of Carlos Delrue and Company of Paris and Dunkerque, to bring in 80,000 immigrants from Switzerland, Belgium, and Prussia. These immigrants were to be established on unused lands.[49] A public land law of April 10, 1848, provided for the sale of public land. In making sales, preference was to be given to persons already on the land.[50]

[40] *Ibid.*, 4:18 (Caracas, 1910).

[41] Wayne D. Rasmussen, "Colonia Tovar, Venezuela," *Agricultural History*, 17:156–166 (1943).

[42] González Guinán, *Historia contemporánea*, 3:412.

[43] *Ibid.*, 4:18.

[44] *Ibid.*, 4:99.

[45] Venezuela, *Recopilación*, 2:257–259.

[46] W. P. Chandler to James Buchanan, Sept. 6, 1845, Consular Despatches, Puerto Cabello.

[47] González Guinán, *Historia contemporánea*, 4:291.

[48] Ramón Veloz, *Economía y finanzas de Venezuela desde 1830 hasta 1944* (Caracas, 1945), 78–79.

[49] González Guinán, *Historia contemporánea*, 4:420–421.

[50] Venezuela, *Recopilación*, 2:413–415.

The government also sought to deal with the persisting prejudices against foreigners. The Secretary of the Interior and Justice wrote to the governors of the provinces on December 23, 1848, directing them to endeavor to remove prejudices against foreigners and to secure for them all the rights and privileges conceded by the constitution and laws. Benjamin G. Shields, the American chargé d'affaires, in a letter to the Venezuelan Acting Minister of Foreign Affairs dated January 2, 1849, expressed gratification over this step and pointed out that a nation with such abundant resources and small population would benefit from "the capital, enterprise, arts and industry of foreign nations."[51]

In 1851, the government named a new immigration commission composed of the Secretary of the Interior and Justice, the governor of the province of Caracas, and seven other members. This commission did little or nothing. Dr. Lucio Pulido was made plenipotentiary-extraordinary to the United States, and the hope was expressed that he could secure immigrants for Venezuela. He met with no success.[52] However, during this period the American press gave some attention to Venezuela, and its resources and possibilities were described in extravagant terms.[53] The endeavors of Luis Glocker, Venezuelan consul at Hamburg, to secure agricultural colonists were more fruitful. He proposed to send German agricultural and artisan families to the provinces of Caracas and Carabobo. The families were to be able to maintain themselves for a year if necessary, and they could contract for work through the mercantile house of Marxen and Eraso of Caracas. Glocker planned to send groups monthly to form colonies but had only a limited success because of the seeming indifference of the Venezuelan government to the project and the barrenness of the public treasury. On June 24, 1851, the bark *Mina* arrived at La Guaira with 18 families totaling 103 persons. In 1852, 605 more persons entered the country through Glocker's efforts.[54]

About this same time, Jorge N. Des Sources, a native of Trinidad, projected a colony under the name of "Numancia," to be located on the banks of the Orinoco River. Des Sources first asked the national government for a grant of land. He failed in this and addressed himself to the government of the province of Guayana. The provincial government passed an ordinance granting lands on general terms to anyone who would cultivate them, and Des Sources brought in a group from Trinidad to settle on this basis.

The American chargé d'affaires, Isaac Nevett Steele, read of this plan in the London *Times* and at once became afraid that if a colony of English subjects became established on the Orinoco, Great Britain would eventually claim and take over the territory even though the projected colony was a private enterprise and was discouraged by the Trinidad authorities. In order to call the attention of the Venezuelan government to the matter, Steele had the London account translated and published on March 2, 1853 in the *Diario de Avisos*, a Caracas newspaper. A few days afterward, the official newspaper, *Gaceta de Venezuela*, published an executive decree forbidding the admission of the immigrants and stating that the governor of Guayana should furnish a full report if they had already been admitted. Curiously, the decree was dated February 24, 1853, and the issue of the *Gaceta* in which it appeared was dated February 27, 1853, although it was not actually published until March 8 or 9. Except for some further newspaper controversy, this apparently ended the matter.[55] At any rate, no permanent colony of British subjects was established.

The Venezuelan government promulgated a new immigration law on May 6, 1854. It was stated that the new law was needed because the law of May 24, 1845 had not produced favorable results. Under the new law, contractors were to receive 10 to 25 pesos for each immigrant brought in, certain land grants were to be made, and the immigrants were to be exempt from all military service and national and municipal taxes for 6 years.[56]

Almost within a year another immigration law was passed. This law, effective May 18, 1855, had one very distinctive feature. The immigration of Asiatics, preferably Chinese, was to be encouraged.[57] The government concluded a contract with Antonio Leocadio Guzmán to bring in such

[51] Benjamin G. Shields to James Buchanan, Jan. 6, 1849, Diplomatic Despatches, Venezuela.

[52] González Guinán, *Historia contemporánea*, 5:189, 210–211.

[53] J. F. Rippy, *South America and Hemisphere Defense* (Baton Rouge, 1941), 67–68.

[54] González Guinán, *Historia contemporánea*, 5:189–190, 275.

[55] Isaac Nevett Steele to Edward Everett, Mar. 20, 1853, Diplomatic Despatches, Venezuela.

[56] Venezuela, *Recopilación*, 3:168–170.

[57] *Ibid.*, 3:246–247.

immigrants, but it was never carried out.[58] Whether this failure was fortunate or not for the general welfare of the country is debatable.

In a contract affirmed on April 20, 1856, two Caracas merchants, Franciso Delgado and Silvestre Rodríguez, agreed to bring 3,000 farmers into Venezuela from the Canary Islands. The contractors were to be paid for each immigrant. Only 154 persons, the total immigration for 1856, were brought in under this contract.[59]

The population of Venezuela in 1850 has been recently estimated at 1,490,000 persons.[60] This figure, judging from other estimates for about the same time, would seem to be a reasonable approximation and would give an average of about four persons per square mile for the country as a whole. After careful study the Venezuelan Dirección General de Estadística has estimated that in 1860 the country had a population of 1,650,000.[61] The increase was a result of internal population growth, not of immigration.

There was still no shortage of arable land in Venezuela even though most of it was held under nominal private ownership. Ramón Páez, son of José Antonio Páez, writing of conditions as they were in Venezuela about 1850, said that land was so cheap and plentiful that whenever it had been exhausted by cultivation the planter found it more advantageous to clear new land than to trouble himself with fertilizer.[62] An examination of the laws issued from 1848 to 1858, during which time the Monagas brothers had control of the government, reveals that large grants of land were made to various persons, mostly on the basis of past military services. This concentration of land, much of which was held on a speculative basis without development, meant that some of the land most suitable for immigrant colonization was not available for settlement. Some of these grants were nullified by succeeding governments. Actually, the continuance of unstable government and revolution was more discouraging to prospective immigrants than any possible lack of land. The United States minister to Venezuela reported in 1860 that one of the revolutionary groups had killed 72 of the Canary Islanders who had settled in Venezuela and had taken or destroyed the property of many others.[63] Reports of such occurrences naturally had a discouraging effect on prospective immigrants.

During the 50-year period, 1810 to 1860, while millions of people were emigrating from Europe, only 12,978 immigrants were recorded as entering Venezuela.[64] Many laws had been passed to encourage immigration, and the position of immigrants under these laws was generally favorable, yet the concrete circumstances of social, economic, and political life militated against the efforts to secure settlers. Venezuela had acquired a reputation abroad for political strife and for an unhealthful climate, factors which inevitably directed the attention of most prospective migrants to other parts of the world. Its government had been unable or unwilling to make the effort necessary to overcome these disabilities.

[58] J. R. Colmenares Peraza, *Venezuela y sus immigraciones* (Caracas, 1940), 24.

[59] Venezuela, *Recopilación*, 3:285–286; José Gil Fortoul, *Historia constitutional de Venezuela* (ed. 2, Caracas, 1930), 3:54.

[60] Walter F. Willcox, ed., *International Migrations* (New York, 1931), 2:77.

[61] Venezuela, *Sexto censo de población*, 1936, 3:8.

[62] Ramón Páez, *Wild Scenes in South America; or Life in the Llanos of Venezuela* (ed. 2, New York, 1863), 9.

[63] E. A. Turpin to Lewis Cass, Aug. 24, 1860, Diplomatic Despatches, Venezuela.

[64] A recent government report places the total at 12,610. Venezuela Instituto Técnico de Immigración y Colonización, *Memoria*, 1940, p. 8.

THE PROGRESS OF THE CATTLE INDUSTRY IN ONTARIO DURING THE EIGHTEEN EIGHTIES

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By the 1870s the farmers of Ontario were being forced to give up an agricultural economy which depended principally upon grain growing. The demands of the lumber industry and of newly settled areas, the growth of towns, and the advantages of the Reciprocity Treaty of 1854 in opening markets in the United States, especially during the Civil War years, were elements contributing to the increasing importance of agricultural products other than wheat. Not only did the termination of reciprocity after 1866 discourage production of this staple but of even more weight was the land exhaustion which resulted after Ontario farmers in their land-mining way had reaped six or seven consecutive crops of the cereal from their fields. By the eighties barley exports to the United States occupied an even more important place in Ontario's commerce than did wheat, but during the decade the use of brewing substitutes and native barley as well as the McKinley Tariff Act of 1890 brought an end to this trade. Finally, grain prices were in general unsatisfactory during the seventies and eighties. As one eminent Canadian remarked of the years between 1879 and 1896: "The farmer's vested right of grumbling at his lot had justification in this period if ever. It was a time of crippling competition, of vanishing profits and painful readjustment to new conditions."[1]

The combination of circumstances outlined above caused a rapid expansion of the cattle industry. Cattle produced manure, and manure enabled the farmers to build up their impoverished lands. Cattle form the basis of the dairy and meat industries, and outlets capable of great expansion were soon found for both dairy and beef products. A British agricultural professor who visited Ontario in 1880 wrote: "The farmers of Ontario declare that they would hardly have known what to do with their land if it were not for cheese-making and particularly for the new cattle and beef trade with England."[2] A hitherto unimportant branch of agriculture was making amazing progress while other phases of the industry lagged. It is the purpose of this study to survey the cattle industry in the decade of the eighties and to sketch briefly some of the results of its expansion.

In 1864, Harvey Farrington, a native of New York, introduced the cheese factory to the Ingersoll district of Oxford County in southwestern Ontario. Other pioneers like Thomas Ballantyne of Stratford built factories and imported skilled personnel from the United States to get their ventures started. Within a few years two dairy districts had arisen in Ontario centering about Ingersoll in the west and Brockville and Belleville in the eastern portion of the province. By 1867 there were estimated to be 235 cheese factories in Ontario.[3] In 1880, according to the report of an agricultural commission convened in that year, there were some 500 factories.[4] The Ontario Bureau of Industries reported 751 plants four years later, and in 1891, as shown in Table 1, this agency credited the province with 838 cheese factories which produced 81,929,142 pounds of cheese in that year.

Abroad the reputation of Canadian cheese rose steadily. In 1880 an Ontario cheese won the sweepstakes at the International Dairy Exhibition in New York. Six years later a dairy display at the Colonial Exhibition in London, England, added mightily to the reputation of Canadian dairy products. The 11-ton cheese exhibited at the Chicago World's Fair in 1893 culminated a long series of cheeses made in mammoth size for

[1] Oscar Douglas Skelton, *General Economic History of the Dominion, 1867–1912* (Toronto, 1913), 179.

[2] J. P. Sheldon, in Canada Department of Agriculture, *Reports of Tenant Farmers' Delegates and Other Information on Manitoba, North-West Territory and Other Parts of the Dominion of Canada as a Field for the Settlement of Agriculturalists and Others* (Ottawa, 1881), 27.

[3] J. A. Ruddick, and others, *The Dairy Industry in Canada* (Toronto, 1937), 44–47.

[4] Ontario Agricultural Commission, 1880, *Report of the Commissioners* (Toronto, 1881), 404–414.

the advertising value involved. The project, to an extent, fulfilled the predictions of Ontario's "cheese poet" who, inspired by the plan, wrote a "Prophecy of a Ten Ton Cheese" wherein he sang:

> The greatest honor to our land
> Would be this orb of finest brand.[5]

The United Kingdom provided the main outlet for Ontario cheese, and by 1890 Canada was the leading cheese producer in that market.[6] The United States and various other countries took smaller quantities of Ontario cheese throughout the period.

The progress in manufacturing, handling, and storing the product was steady. A partial list of the improvements introduced during the eighties includes an improved curd stirrer, the use of seamless cheese bandages, a more efficient press, the adoption of a sweet-curd method of making cheese to replace the older "acid system," the more general use of ice-cooled storage rooms, and the introduction of the Babcock tester to determine fat content and detect adulteration.

TABLE 1

Cheese Factory Statistics

Year	*Number of factories*	*Product in pounds*	*Patrons per factory*
1882	471	39,346,095	
1883	635	53,513,032	51
1884	751	66,939,573	51
1885	752	71,209,719	59
1886	770	63,721,621	49
1887	737	65,638,656	58
1888	737	65,299,751	57
1889	784	72,592,847	55
1890	817	79,364,713	55
1891	838	81,929,042	54

Source: Ontario Bureau of Industries, *Annual Reports*, 1882–1891. There is a strong probability that the data for 1882 are not complete.

In 1868 an Ontario dairymen's association presented its first report, and nine years later this body was split to form associations in both Eastern and Western Ontario. Receiving aid from the Ontario Government these groups held annual conventions at which dairy experts lectured upon improved methods, and means of improving the Ontario product were discussed and implemented. During the late eighties both associations sponsored inspectors who visited the factories operated by their members, instructed the cheese makers, and tested the milk brought in by the patrons for adulteration. The dairymen of Scotland soon followed Ontario's example in this respect, and James W. Robertson, the professor of dairying at the Ontario Agricultural College and later Dominion Dairy Commissioner, remarked: "If you can find a Scotchman following you, you may be sure you are travelling in the right road."[7]

Butter production unfortunately lagged behind that of cheese. Most butter was made in farm dairies and was distinctly inferior in quality. Between thirty and forty creameries throughout Ontario produced some which was of good quality, but their output constituted a minor fraction of the whole. During the eighties Ontario butter lost ground in the British market where it had the dubious distinction of being "the strongest butter received there from any part of the world."[8]

A detailed description of dairying has no place in this study, but the foregoing sketch reveals the motivation which caused Ontario farmers to increase their herds of milch cows by some 108,000, or almost a sixth, between 1882 and 1891. Table 2 gives year-by-year figures for milch cows as well as other classes of cattle.

Before 1874 the production of beef cattle in Ontario was restricted by a relatively small foreign demand and by poor transportation facilities, but in that year Frankland and Company, a butcher and packing firm of Toronto, bought a choice lot of young steers from the Ontario Experimental Farm and shipped them to England. This trial shipment was successful, and expansion of the cattle trade began immediately. The number exported from Canada to Great Britain rose from 35,378 in 1882 to 122,182 in 1890.[9]

At first inadequate handling facilities at Montreal and overcrowding aboard ship had serious

[5] James McIntyre, *McIntyre's Poems* (Ingersoll, 1889), 209.

[6] Ruddick, *The Dairy Industry in Canada*, 65.

[7] Dairy and Creamery Associations of the Province of Ontario, *Annual Report*, 1889, p. 21; also issued as *Ontario Sessional Paper No. 49* (1890).

[8] James W. Robertson, in *Farmer's Advocate*, 25:12 (January 1890).

[9] Canada Department of Agriculture, *Report of the Minister of Agriculture . . . for the Calendar Year 1890* (Ottawa, 1891), viii; issued as Canada Parliament *Sessional Paper No. 6* (1891). The numbers for the intervening years are: 1883, 55,625; 1884, 61,843; 1885, 69,158; 1886, 64,555; 1887, 64,621; 1888, 60,828; and 1889, 85,053.

effects upon the condition of the cattle exported, but following the protests of shippers and the appointment of Dominion inspectors conditions improved. According to the *Farmer's Advocate*, losses aboard ship from Montreal between 1884 and 1889 were never greater than 1.33 percent, and in three of the six years were only 0.5 percent.[10] Gradual improvement in steamship facilities and competition kept rates down. When the shipping lines engaged in cattle carrying combined to form a "ring" in 1880, ships were rigged out in Liverpool and dispatched to Canada for cargoes of cattle while many animals were exported via Boston and Portland. Before such remedial measures the combination collapsed.

TABLE 2

Ontario Cattle Statistics, 1882–1891

Year	Working oxen	Milch cows	Store cattle over 2 years	Young and other	Totals
1882	14,566	665,382	272,208	610,527	1,562,683
1883	17,071	690,437	321,471	789,075	1,818,054
1884	16,793	710,519	384,453	813,905	1,925,670
1885	15,302	750,005	373,856	837,317	1,976,480
1886	14,414	746,897	418,079	838,783	2,018,173
1887	13,763	748,321	392,580	793,600	1,948,264
1888	12,572	781,559	388,939	745,568	1,928,638
1889		779,171		1,112,728	1,891,899
1890	10,167	777,838	347,640	759,067	1,894,712
1891	6,716	773,234	359,318	839,547	1,978,815

Source: Ontario Bureau of Industries, *Annual Reports*, 1882–1891. This agency published its first report in 1882, and although it did not make a return every year its custom of publishing two years' statistics in each report for purposes of comparison allowed the compilation of an almost complete table for the ten years covered.

Canadian cattlemen shipping to England had a considerable advantage over their American competitors because the latter were forced to slaughter within a few hours of debarkation while the quarantine law was waived for Canadian cattle, thus allowing them to be fed into prime condition again.[11] At the end of the decade this advantage was brusquely removed after an Englishman, Samuel Plimsoll, wrote a pamphlet on *Cattle Ships* in which he stressed the cruelty of shipping methods and recommended legislation prohibiting importation of live cattle from ports west of 12 degrees west longitude. Such arguments found strong support among the cattle breeders of England, and they pressed Parliament to introduce the legislation. The measure was never obtained, but as the nineties opened the cargo of a storm-tossed cattle ship from Montreal was reported to be suffering from pleuro-pneumonia and all import restrictions were extended to Canadian cattle. This hampering limitation was sustained until the 1920s and was a constant source of irritation, rendered all the more galling because, in contrast to conditions in the United States and Europe, Canadian herds were exceptionally free from disease in the eighties and nineties.[12]

The demands of the market and further research in fat stock feeding brought a change in the age at which steers were sold for slaughter. Prior to the 1880s the average steer had been a massive beast between three and four years of age. During this period it became known that by forced feeding an animal could be put on the market at a much earlier age at a cost of less than half as much per pound as that necessary to produce the older beef. Professor William Brown of the Ontario Agricultural College was a keen exponent and publicist of the new production technique, and his teachings were amply confirmed in the show rings of the agricultural exhibitions.

By 1880 some 25,000 Ontario farmers were sending their milk to cheese factories and thus, nominally at least, were interested in improving their herds to obtain a larger milk flow. Many more were concentrating upon breeding better meat animals. Although agricultural societies had begun early in the nineteenth century to import the occasional purebred animal, and scattered individuals imported cattle actively from the British Isles after 1840, there was still a comparatively small number of improved cattle in Ontario.

The Ontario Agricultural Commission of 1880 received reports upon livestock from 409 townships. In 53 rural municipalities there was no improved stock whatsoever. In 113 townships the improvement was very slight indeed. In 126 the improvement was considerable while 117

[10] *Farmer's Advocate*, 25:331 (October 1890).

[11] W. H. Davies, *The Autobiography of a Super-Tramp* (London, 1908), contains an interesting and informative chapter describing a voyage on an American cattle ship. Conditions were reputedly better aboard Canadian vessels.

[12] Vernon C. Fowke, *Canadian Agricultural Policy: The Historical Pattern* (Toronto, 1946), 189–211, is a helpful resume of the quarantine difficulty.

municipalities reported general improvement.[13] When weighing these statistics it should be remembered that they were submitted by the township authorities who could hardly be expected to present an overdrawn picture.

The decade of the eighties, however, saw great activity among the exponents of improved cattle. The supporters of established breeds strove to maintain the supremacy of their animals while the advocates of more recently introduced kinds of cattle vigorously spread propaganda on behalf of their favorites. This was called "breed booming," and in its more extravagant form reached a stage that was distinctly speculative, although the efforts of importers to stampede the farmers into buying their particular breed of cattle never reached the height in Canada which it did in the United States where herdsmen dressed in kilts led the "Bonnie Doddies" (Aberdeen Angus cattle) through city streets in processions led by pipers.

Cattlemen frequently launched arguments in the various papers upon the relative merits of the different breeds. The Jersey and Holstein-Friesian breeders especially seized every possible opportunity to extol the virtues of their cattle and in some cases to criticize other breeds. Several farm periodicals of the time were primarily dedicated to the advancement of stock raising. The most important of these was the *Canadian Livestock Breeder* which began publication at Hamilton in 1884 and whose motto maintained that the keeping of good stock constituted the right arm of agriculture.

The story of the Dryden family and its conversion to the cause of blooded stock was frequently told in the era of the eighties as an argument on behalf of the purebreds. As a lad John Dryden was enamored of the sleek blooded Shorthorns which he occasionally saw elsewhere, but his father refused to have "fancy" stock on the farm. Finally, however, the elder Dryden yielded to his son's pleading and paid $25 for a purebred bull calf which was placed in a pen with several common calves and given no special treatment whatsoever. To Dryden's amazement the purebred grew completely away from the other calves, and he was finally convinced that blooded stock had its merits. Accordingly he laid the foundation for the herd of purebred Shorthorns which under the Honorable John Dryden's management was reckoned during the eighties to be one of Ontario's finer herds.

[13] Ontario Agricultural Commission, *Report*, 231–242.

The purebred propaganda influenced some Ontario farmers, and they endeavored to grade up their common stock by the use of purebred sires or in some cases went completely into the purebred field. A great many, however, were still too ignorant of purebred merits, too hard-pressed financially, or just too penurious to experiment with the "fancy" cattle. Nevertheless, a steady economic pressure stimulated new departures in farming methods and purebred registrations rose steadily.

Professor William Brown prepared a map in 1882 showing the areas of Ontario dominated by the various breeds of cattle. Shorthorns were fairly evenly distributed throughout central Ontario from Bothwell to Whitby and extended as far north as Port Elgin and the northern tip of Lake Simcoe. Herefords were concentrated in smaller areas about London, Guelph, Barrie, Bracebridge, Bowmanville, northeast of Lindsay, and north of Prescott. There were Aberdeen Angus areas near London, Guelph, and northeast of Lindsay. There was a Devon center north of Lake Simcoe and a few Galloways near Guelph.[14]

As yet the Shorthorn was dominant among Ontario's cattle. The Ontario Bureau of Industries estimated in 1882 that there were 23,619 purebred cattle in Ontario and that probably two-thirds of this number were Shorthorns.[15] A striking illustration of the breed's predominance is provided by the breeders' directory found in any of the farm journals during the decade. Here, in one case, 50 breeders of Shorthorn cattle were listed while among the owners of other breeds there were listed 9 Ayrshire men, 4 who kept Herefords, 4 Jersey breeders, 3 Holstein men, 2 Angus breeders, and 1 keeper of Devons. Naturally this was not the total number of farmers who kept any one breed, but it is probably a fairly accurate proportional representation.

A controversy developed among the Shorthorn breeders during the eighties which lessened that breed's popularity to some extent. Until 1881 the purebred Shorthorns of Ontario could be registered in the Canada Shorthorn Herd Book published by the council of the Agriculture and Arts Association of Ontario. Unfortunately the council lowered

[14] "The Herds and Flocks of Ontario," Ontario Commissioner of Agriculture and Arts, *Annual Report*, 1882, Appendix B, p. 93–117; also issued as *Ontario Sessional Paper No. 3* (1882–3).

[15] Ontario Bureau of Industries, *Annual Report*, 1882, p. 54.

the qualifying standards necessary for registration without the consent of all the breeders concerned. As a result, a dissatisfied group met in June of 1881 and decided to form an association which would take over the herd book. The new Shorthorn association was formed in the fall, and it began publication of a register known as the British American Herd Book. For a time the two herd books were continued, but governmental pressure led to an amalgamation of the two into the Dominion Shorthorn Herd Book. Representatives of both groups sat in conference to establish standards and to iron out the attendant difficulties.[16] Unfortunately for some the new standards outlawed many cattle which their owners believed to be purebred. The most outstanding of these were the Shorthorn bull, Roger, and his descendants. Breeders who owned cattle of the Roger strain held indignation meetings and were joined by others who had been similarly nipped. The new standard stood, however, and the luckless had to find whatever consolation they could. The bar sinister had finally caught up with Roger.

The whole controversy had a very bad effect upon the Shorthorn business because those who were newly interested in purebreds turned to other breeds. Thus the Herefords and the Angus were given an opportunity for more rapid progress than they might otherwise have enjoyed. By the end of the decade the Hereford breeders were strong enough to form the Dominion Hereford Breeders' Association with F. W. Stone of Guelph as president and the Honorable H. M. Cochrane as vice president. Less popular fat breeds still continued to be registered by the Ontario Agriculture and Arts Association without the control or advice of a breeders' organization. Along with the Herefords and Angus the Shorthorns provided the main beef cattle of Ontario although the distinction made between beef and dairy cattle was not as hard and fast in those days as at present.[17]

Among those now recognized as strictly dairy breeds the Ayrshire was the first to enter the Ontario field. Possibly forerunners of this breed entered Ontario from Quebec as early as 1845. William Brown's map lists the Ayrshire as present in Wentworth, Halton, Peel, York, Simcoe, Frontenac, Lanark, Carleton, Leeds, and Russell counties as well as in the region surrounding Prescott. In 1872 the council of the Ontario Agriculture and Arts Association established the Dominion Ayrshire Herd Book, but not until the fall of 1886 did the Ayrshire breeders of Ontario begin formation of the Dominion Ayrshire Breeders' Association to supervise this register. At a meeting of the group in January of the following year, James McCormick of Rockton was elected president of the association, Thomas Guy of Oshawa became vice president, and Henry Wade of the Ontario Bureau of Agriculture was chosen secretary. Sometime before this the Ayrshire breeders of Eastern Ontario and Quebec had formed the Ayrshire Importers' and Breeders' Association with William Rodden of Plantagenet, Ontario, as president and James Drummond of Petite Côte, Quebec, occupying the position of vice president. This association published the Canada Ayrshire Herd Record. Although attempts were made to amalgamate the two herd books during the eighties, arguments arose concerning the eligibility of various animals, and it was not until 1898 that the two groups merged to form the Canadian Ayrshire Breeders' Association.

The Ayrshires are an excellent dairy breed and were already well established in Ontario at a time when the number of milch cows rose sharply. Despite this fact the Holstein-Friesian, an unknown breed in Ontario at the beginning of the 1880s, had 5,000 more registrations by 1911 than did the Ayrshire.[18] The periodicals of the period mention the apparent disinterest of Ayrshire breeders as a group in meeting competition, and this characteristic probably gave the more militant Holstein men their opportunity.[19]

Jerseys were present in Ontario throughout the decade and centered about Brockville, Toronto, and Hamilton. Near this last city was the herd of Valancey E. Fuller which was credited with being the largest in the British Empire. Their rich milk, especially suitable for butter making, made

[16] The officers of the Dominion Shorthorn Breeders' Association were: President, John Dryden of Brooklyn, Ontario; vice presidents, Richard Gibson of Delaware, Ontario, and J. S. Williams of Knowlton, Quebec; directors, George Lawson of Halifax, Nova Scotia, D. Ferguson of Charlottetown, Prince Edward Island, Bliss Anderson of Sackville, New Brunswick, Walter Lynch of Westbourne, Manitoba, and James Steele of Spillimacheen, British Columbia; and secretary, H. Wade of Toronto, Ontario.

[17] In 1945, according to L. E. O'Neill, Ontario Livestock Commissioner, there were 1,025 Ontario members of the Canadian Shorthorn Association, 160 members of the Aberdeen Angus Association, and 300 members of the Hereford Association.

[18] Ruddick, *The Dairy Industry in Canada*, 18.

[19] *Farmer's Advocate*, 21:294 (October 1886).

these animals very popular for a time, and in 1882 a group of Ontario breeders formed a small organization with Fuller as president. In the early eighties, Fuller received some very high prices and in one case was reported to have refused an offer of $26,000 for a cow. By 1888, however, the Jersey "boom" was dying down, and Ontario's leading Jersey breeder was accepting much more reasonable prices.[20]

In 1880 the Ontario Agricultural Commission was unable to find any record of the Holstein-Friesian breed in Ontario.[21] Several breeders, however, began to import these animals in the winter of 1882–83, and consignments of these big black and white cattle were brought into the province from both the United States and the Netherlands as a vigorous campaign was begun on their behalf. In 1886 over 130 Holstein-Friesians were shown at the Provincial Exhibition to the amazement of many farmers who had never seen the "Dutch" cattle before. Among the pioneer breeders were M. Cook & Son of Aultsville, J. S. and A. C. Hallman of New Dundee, E. Macklin & Sons, Fennell, and the Wyton Stock Breeders' Association of Wyton, Ontario. In 1883 a Holstein-Friesian breeders' association was formed, but until 1891 the Canadians recorded their cattle in the American Herd Book.

During the eighties leading dairymen were becoming very conscious of the importance of the fat content in milk, and competitions were held at the exhibitions in which dairy cows competed in milk and butter production contests. At first the Holsteins appeared to have little difficulty besting other breeds in straight milk production, but when butter production was also reckoned they fell short. Champions of the other breeds, however, had their composure rudely shaken in 1887 when the Holstein cow, Clothilde, bested all comers by producing 2 pounds and 7½ ounces of butter from the milk yielded within 24 hours at the New York Dairy Show. Thus the Holstein breeders were able to say that here at last was the ideal dairy cow, and from the foundation laid in the 1880s the Holstein-Friesian breed has prospered and become dominant among Ontario dairy cattle.[22]

An interesting feature of cattle breeding in the era of the eighties was a sharp decline in the number of oxen. In 1883 Ontario was credited with 17,071 cattle of this type. By 1891, as shown in Table 2, this number had dropped to 6,716. The decline was due to the disappearance of frontier conditions in Ontario and a correspondingly greater use of horses, although possibly some of the older beef animals were for a time classified as oxen. The lessened numbers of oxen probably relieved the strain upon farm vocabularies to a considerable extent. One of the farmer delegates from Ireland at the opening of the decade encountered a farmer struggling with a very stubborn pair of beasts, whereupon he remarked: "Friend, you are having a hard time with your oxen." To this the driver replied with a sigh: "Yes, I came out here a religious man, but I am now persuaded that no man can remain religious and drive oxen."[23]

By 1890 the milk pail and the fat steer shared a new importance in Ontario. It is in the preceding decade that the changed pattern of agriculture in the province became very apparent. The number of cattle kept upon Ontario farms rose, and the industry was bathed in an aura of breed advertising, and at times, speculation. Purebred advocates showed a tendency to organize for purposes of united action upon the problems of registration and sale. Shorthorn, Hereford, Jersey, Ayrshire, and Holstein-Friesian associations were projected or formed between 1880 and 1890. Succeeding years were to bring new factors affecting the cattle industry. The appointment of a Dominion Dairy Commissioner in 1890, the advent of winter dairying which was little more than an idea in 1889, invasion of the market by fat cattle from Canada's western plains, and the scheduling of Canadian cattle under the provisions of the British quarantine laws are all fraught with importance in a long-run treatment of this subject, but they cannot rob the period between 1880 and 1890 of its interest or of its importance as the time in which the cattle industry of Ontario was being established upon a firm foundation.

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[20] *Illustrated Journal of Agriculture* (Montreal), 10(1):4 (January 1888).

[21] Ontario Agricultural Commission, *Report*, 270–274.

[22] In 1945 Ontario had 6,973 members in the Holstein-Friesian Association of Canada, but the total Dominion memberships in the Jersey and Ayrshire associations totalled only 2,187 and 2,250 respectively. *Holstein-Friesian Journal* (Toronto), 8(12):26–27 (March 1946).

[23] R. H. B. P. Anderson, in Canada Department of Agriculture, *Reports of Tenant Farmers' Delegates ...* (Ottawa, 1881), 96.

THE DEVELOPMENT OF AGRICULTURAL ECONOMICS IN EUROPE PRIOR TO 1925

EXCERPTS FROM ANGELO MAURI'S "I NUOVI SVILUPPI DELL' ECONOMIA AGRARIA"

This article consists of selected parts of Angelo Mauri's essay on "*I nuovi sviluppi dell'economia agraria* [The New Developments in Agricultural Economics]" which was published in a volume entitled *Studi dedicati alla memoria di Pier Paolo Zanzucchi dalla Facoltà di Giurisprudenza* (*Pubblicazioni dell'Università Cattolica del Sacro Cuore, serie settima, Scienze giuridiche*, tomo 14, Milano, Società editrice "Vita e pensiero" [1927]), pages 477–508. Hency C. Taylor arranged for Cesare Longobardi of the International Institute of Agriculture at Rome, Italy, to translate Professor Mauri's essay and then extracted from the Longobardi translation the parts here presented. About half of the material has been omitted as it is concerned with developments in the United States, examples unfamiliar and hence not illuminating to American readers, and discussions of political aspects unessential to an understanding of developments in economic thought. The footnotes, except number 17, are from the original text, but the citations have been amplified as an aid to readers of *Agricultural History*. For the same reason, the given names of the economists have also been supplied in the text.

In offering this translation for publication, Dr. Taylor made the following comments: "The development of agricultural economics as a field of specialized research and teaching has been in progress in Europe for nearly a century. During this time the nature of the subject, its name, its content, its static or dynamic character, and its relation to national agricultural policy have been discussed from many points of view. One can more fully understand the agricultural economics of his own country when he knows something of the same subject as developed in another country and under different conditions of soil, climate, population density, and cultural progress. But the world disturbances of the past third of a century have so largely stopped the flow of American students to the old fountains of learning in continental Europe that a whole generation of agricultural economists has grown up without adequate opportunity to come in touch with the men who have been responsible for the development of this subject in Europe. In the inter-war period the International Conference of Agricultural Economists rendered valuable service by bringing the agricultural economists of Europe and America together for a week on five occasions, but this still left much to be desired. For these reasons I have thought it important that the American student should have an opportunity to read those parts of Mauri's monograph which relate to the development of agricultural economics in Germany, France, and Italy."

Permission to publish these extracts from Professor Mauri's essay was granted by Professor Agostino Gemelli, Rector of the Catholic University of the Sacred Heart, Milan, Italy, under the date of October 15, 1945.—*Everett E. Edwards*

To European scholars the term, agricultural economics (*economia agraria*), immediately calls to mind the dominant figure of Wilhelm Roscher, the ever great master of the old historical school, and along with him, also in Germany, the authoritative group of senior writers of treatises: Adolf Buchenberger, Lujo Brentano, Johannes Conrad, Gustav Cohn, Theodor von der Goltz, Eugen Philippovich, August Meitzen, Max Sering, Eduard David, and Karl Kautsky, with the fine cohort of their immediate disciples. The first edition of *Nationalökonomik des Ackerbaues und der verwandten Urproductionen* appeared in 1859 when Roscher was professor at Leipzig and reached its fourteenth edition, revised and agumented by Heinrich Dade, in 1912. The *Agrarwesen und Agrarpolitik* by Buchenberger appeared in two volumes in 1892–93 and reappeared with its first volume brought up to date by Willy Wygodzinski in 1914. In method Buchenberger was the antithesis of Roscher and had a vision of agricultural problems far more vast, more modern, and more social.

A distinction between agricultural economics (*economia agricola*) and industrial economics (*economia industriosa*) was made by Italian economists of the second half of the eighteenth century.[1] At the end of that century, Paolo Balsamo, while delivering the course of lectures on agriculture at the Academy of Palermo, was the first to include an abundance of economic considerations and trace the constructive lines of what he called rustic-political economy (*economia*

[1] Together with Antonio Genovesi (1712–1769) and Pietro Verri (1728–1797), Cesare Bonesana Beccaria (1738–1794) deserves particularly to be mentioned. He offered matter for an interesting study on this subject in the program he proposed to the government of Vienna and in the course of lectures he delivered from the new chair of public economy at the palatine schools of Milan.

rustico-politica). Balsamo, the learned canon of Termini, had been able to accumulate a large amount of technical knowledge on land production not only by directly surveying the cultural systems in the vineyards of Tuscany and the rice fields of Lombardy but also by observing English estates for two years at the side of Arthur Young. He pointed out as early as 1796 the usefulness of studying the economics of agriculture as well as the physical and biological aspects, and of this discipline he may be called a precursor. At that time Balsamo affirmed "that the good and wise cultivator should be well instructed in the principles and fundamental maxims of political economy (*economia politica*) and in that part of it which relates to agriculture."[2]

In the vast field of economic science in Germany, agricultural economics is not yet established as a separate body of science with a distinct and specialized treatment. Roscher had truly opened the way with his *Nationalökonomik des Ackerbaues*, thus accrediting the naming of the discipline to which the old historical school gave, among other merits, careful attention and attracted many students. But later on Gustav Friedrich von Schmoller at the head of the new historical school, though treating agricultural problems with great alacrity and competence, refused to detach this subject matter from the body of his *Volkswirtschaftslehre*.[3] Buchenberger, followed by von der Goltz and more recently by Wygodzinski, found it preferable to divide the title of his treatise into the two vital parts of agricultural economics forming the binomial *Agrarwesen und Agrarpolitik*.[4] In this way the advantage was gained of stating the subject with greater apparent clarity, but, on the other hand, the designation of a unique and comprehensive discipline was missing, and from the title vanished even the hint of the existence of a specific discipline for what represents the actual basis of agricultural economics, namely the "being" of the land and the agricultural world in its economic aspects. The writers on *Agrarpolitik* such as Lujo Brentano, Josef Gruntzel, August Skalweit, and Hermann Schullern-Schrattenhofen,[5] and the treatise writers of *Volkswirtschaftspolitik*, beginning with the greatest such as Conrad and Philippovich,[6] have more or less included under that single name all the ambit of subject matter maintained by their predecessors. Finally in the powerful *Grundriss* being prepared by Sally Altmann and forty-five coauthors the treatment of the economics of agriculture has lost every character of unity, becoming dismembered into valuable but autonomous and not strictly coordinated monographs, such as those by Theodor Brinkmann on the economics of farm management and by Karl Grünberg on the *Agrarverfassung*.[7]

But even in respect to the *Agrarpolitik* proper, dissensions and debates are not lacking. Wygodzinski pointed out in one of his latest writings the lack of a precise definition generally accepted and recognized and quoted the two diverse definitions by Buchenberger and Conrad, one of which refers to the principles and the directions of the state for the care of agricultural activity (*Grundsätze zur Pflege*) and the other to the duties of the state for the promotion of this activity (*Aufgaben zur Forderung*).[8] On his part he then added a new coefficient of amplification by including also the negative—or rather depressive—agricultural pol-

[2] *Corso di agricoltura economico-politico, teorico, practico*, unedited work by Paolo Balsamo published by Carlo Somma (Palermo, Biondo, 1855), [illegible].

[3] Gustav Friedrich von Schmoller, *Grundriss der allgemeinen Volkswirtschaftslehre* (Leipzig, Duncker & Humblot, 1900–04).

[4] Adolf Buchenberger, *Agrarwesen und Agrarpolitik* (Leipzig, C. J. Winter, 1892–93); Theodor von der Goltz, *Agrarwesen und Agrarpolitik* (ed. 2, Jena, G. Fischer, 1904); Willy Wygodzinski, *Agrarwesen und Agrarpolitik* (ed. 2, Berlin, G. J. Göschen, 1920).

[5] Lujo Brentano, *Agrarpolitik* (ed. 2, Berlin, J. G. Cotta, 1925); Josef Gruntzel, "Agrarpolitik," in his *Grundriss der Wirtschaftspolitik* (ed. 2, Wien, A. Hölder, 1919); August Skalweit, "Agrarpolitik," in *Handbuch der Wirtschafts- und Sozialwissenschaften*, by Adolf Günther and Gerhard Kessler (ed. 2, Berlin, W. de Gruyter & Co., 1924); Hermann Schullern-Schrattenhofen, "Agrarpolitik," in *Grundrisse zum Studium der Nationalökonomie*, by Karl Diehl and Paul Mombert (Jena, G. Fischer, 1924).

[6] Johannes Conrad, "Volkswirtschaftspolitik," in his *Grundriss zum Studium der politischen Oekonomie*, ed. 10, enlarged and completed by Albert Hesse (Jena, G. Fischer, 1923); Eugen Philippovich, "Volkswirtschaftspolitik," in his *Grundriss der politischen Oekonomie* (ed. 4, Tübingen, J. C. B. Mohr, 1912).

[7] Theodor Brinkmann, "Die Oekonomik des landwirtschaftlichen Betriebes," and Karl Grünberg, "Agrarverfassung: I, Begriffliches und Zuständliches," in *Grundriss der Sozialökonomik*, 7: 27–124, 131–167 (Tübingen, J. C. B. Mohr, 1922).

[8] "Agrarpolitik," in *Handwörterbuch der Staatswissenschaften*, edited by Ludwig Elster, Adolf Weber, and Friedrich Wieser (ed. 4, Jena, G. Fischer, 1923).

icy directed in its attitude and measures not toward favoring agricultural interests but sacrificing them.

More recently August Skalweit added a further debatable element. He did it not only by assigning to the discipline the duty of "showing to public authorities the roads by which they must proceed in the well understood common interest" but by extending the boundaries of the subject matter. This step had already been taken by Philippovich in his first edition of the *Volkswirtschaftspolitik* in 1899, and several years later it had been more accentuated by him in his inaugural address as rector at the University of Vienna in 1905. Against the prevailing conception of an economic policy purely of the state, or partly of the state, or of smaller bodies having public authority, he raised with fervor his own conception, which opened the doors to all the powers aiming at an increase of collective economy even by action of private associations and also of single individuals. But, as much as concerns agricultural policy, in his own academic entourage, Grünberg opposed this view, insisting upon the restriction of action to the bodies of public character.[9]

Between the two conceptions Skalweit kept a middle course. On the one hand he did not dare to state in the definition what the development of the treatment of the subject actually brought him to do, namely to consider *Agrarpolitik* as including all the field of agricultural economics notwithstanding the inadequacy of its name. Yet on the other hand he took up again the process of extension opposed by Grünberg and also admitted into the precinct of policy the manifestations and initiatives not of individuals but of organized groups which arise to promote rural self-help and whose objectives correspond to the collective interest. Reopened in such a way, Schullern-Schrattenhofen ended by breaking through entirely and returned to the conception of Philippovich in his treatise, to which we have already referred and which constitutes the latest important publication offered us in the field of economic literature.

Science may well show the way to anybody without departing from the authority of its methods and getting itself mixed up with the practices of the statesman or the party man, especially when it does not pretend to impose specific solutions for particular cases but indicates criteria of a general character and offers to the thoughtful consideration of those who wish to act the positive and highly instructive results of previous experiments ascertained by rigorous investigation and purified of any impassioned or contingent dross.

Herbert Schack stated some fundamentals which merit consideration about the subject matter of *Agrarpolitik* and the orientation to which it must be inspired in order that it may not remain on the one hand purely passive and on the other not get its activity as a science mixed with the applications of the art.[10]

The goal to aim at—as the thought of Schack may be summarized—must be fixed at each turn, at each place, and at each time, by the man of affairs, by the man who can convert ideas into facts. The cognition of these objectives and the factors which suggest their choice, the critical examination of their degree of possibility and utility, the presentation of the means for reaching them and then connecting them with each other, and finally the evaluation of the congruity of these same means in respect to each aim for which they are intended, constitute the subject matter of scientific *Agrarpolitik*, which therefore unites in a purely descriptive function the two higher and more arduous tasks of an immanent critique on the merits of the means and of a transcendent critique on the merits of the aims. It must not vegetate in the closed rooms of students or in academic halls away from practical life, but it must win for itself a directive place in the changing world, keeping in view not only the already accomplished or tried or proposed realizations but also the unexplored possibilities that the *Agrarpolitik* has the function if not the duty of searching and indicating, although always reserving definite judgment until the facts are ascertained. And in the field thus delineated not one but several disciplines must sprout and become trees: a general

[9] Karl Grünberg, "Agrarpolitik," in volume 2 of the publication in honor of Schmoller, *Die Entwicklung der deutschen Volkswirtschaftslehre im neunzehnten Jahrhundert* (Leipzig, Duncker & Humblot, 1908); Georg von Mayr, *Grundriss zu Vorlesungen über praktische Nationökonomie* (Tübingen, H. Laupp, 1900); Josef Gruntzel, "Agrarpolitik"; Friedrich von Kleinwächter, *Lehrbuch der Volkswirtschaftspolitik*, volume 2 of his *Lehrbuch der Nationalökonomie* (Leipzig, C. L. Hirschfeld, 1923).

[10] Herbert Schack, "Agrarpolitik als Wissenschaft," in *Jahrbücher für Nationalökonomie und Statistik* (Jena, G. Fischer, 1923).

theory of *Agrarpolitik* which studies the conditions and aims of agricultural policy in the aspects common to them; a special theory which examines the positive features in each problem; a history of practical agricultural policy which considers the concrete development of such conditions and aims; a sociology of practical agricultural policy which searches and illustrates the relations of these conditions and aims with all the complexities of the social environment in which they appear; a philosophy of agricultural policy addressed to the study of the systematic construction of this science; and a sociology of scientific agricultural policy which searches in the social state of the epoch for the foundation of the corresponding conception of pure science.

Thus Schack found six disciplines in the *Agrarpolitik* which constitutes only one part of agricultural economics! But, aside from every exuberance of theoretical constructivity which may also point toward an economic astrology not very useful to science and not at all useful to life, the conceptions which Schack presented are the most correct and complete. Especially are we induced to appreciate Schack's conceptions when we compare them with those which Walter Schiff, the learned Viennese economist, very amply presented, starting from the evidence of the uncertainties and deficiences of the old and new works on agrarian policy, particularly in this basic question of the ambit of the discipline.[11]

Schiff made a praiseworthy effort toward clarification, counterpoising the density of synthesis used by Schack with his own particular diligence of analysis, which may appear even too minute, but it is very helpful to individualize and examine one by one all the constituent elements of the problem in a well established system of questions, which form an ordinate set of many compartments in a general schematic picture. But his conclusions, which might have been definitive, are instead partly timid and defective on account of his modesty, because of which he stopped near the summit, conceiving the science as a *hortus conclusus* (closed garden) with too narrow limits and was excessively cautious not to surpass its boundaries.

Schiff started with a clear division between scientific *Agrarpolitik* and the practical *Agrarpolitik* and considered the second to be the object of the first, defining this object as the complex of "all the measures which directly influence agriculture, that is to say farm management, land possession, and rural population, independent of the motives (*Motiven*) by which they are inspired," with the adjunctive explanation that in this list must be included on the one hand, together with the measures already applied, those only projected or favored, and on the other hand, with the measures concerning the action of the state or of public administration, those of autonomous bodies of a public nature such as districts and communes and those of corporate bodies such as labor unions, employers' organizations, and so on. To this practical agricultural policy four principal tasks are assigned: (a) to promote the greatest quantitative and qualitative increment of production; (b) to regulate the juridic aspects of farming, both to eliminate what is contrary to the most rational and profitable use of the land and to improve the conditions of the farmer; (c) to give a more just and convenient arrangement to the distribution of landed property, regulating also the buying and selling of land; (d) to take care of the problem of farm labor, both by eliminating labor scarcity in the countryside and by developing legislative assistance and protection for agricultural wage earners parallel to that initiated and in effect for industrial workers. In this way a vast field of positive and contingent action is traced on which the *Agrarpolitik* may afterward construct its doctrinal structure and consequently the possibility of providing a discipline for agricultural policy not labile but stable and having the real and true character of a science.

Schiff asked himself: *Kausalwissenschaft* or *Normativwissenschaft*? Descriptive science which limits itself to noting the relations between causes and effects, between measures and results, or directive science which establishes the orientations to follow and provides the bases for solutions? Under the first aspect, agricultural policy can in every case be a science, provided it proceeds free from any influx of subjective views and personal tendencies. Ascertaining the causes that have determined a specific state intervention (we speak of the state only as an example being the

[11] Walter Schiff, "Ueber Wesen und Besonderheiten der Agrarpolitik," in *Archiv für Sozialwissenschaft und Sozialpolitik*, 1: 427 (Tübingen, 1925). In this article the author took up again and developed the ideas expressed nearly thirty years before in the introduction to his large volume on the economy of agriculture in Austria: *Oesterreichs Agrarpolitik seit der Grundentlastung* (Tübingen, H. Laupp, 1898).

most important and typical agent), the factual situations that have provoked a specific measure, and the results that have been obtained by such a measure or the efficacy that it appears to be exerting all forms a complex of investigations which do not imply valuations of merit and certainly are not in conflict with the function and the objectivity of science. On the other hand, the scientific character of agricultural policy under the second aspect, that of *Normativwissenschaft*, may be questioned since it formulates estimative evaluations and expresses judgments on the intrinsic utility of applied measures or on the ease of administering the measures. On this point Schiff asked himself a series of questions and finally reached the conclusion that agricultural policy even under this form of activity may be maintained on a scientific basis but only on one condition, namely by issuing judgments based on efficiency and not merit. It should judge not the aim but the adaptation of the means to the end, it should do—if we here apply Schack's terminology —a work of immanent critique but should abstain from the transcendent.

In this exclusion, lies Schiff's error. If his criteria were accepted, agricultural policy would come to be a purely experimental science which limits itself to noting the effects of different operative processes with a view to selecting and reporting upon those which have attained their aims. It would be a science lacking media for elevating itself above the study of the means to examine the aims as such and to determine whether they have merited pursuit and attainment. Certainly, experimentation in agricultural policy, as in all economic and social policy, has an importance of the first order. It is, in fact, necessary to temper ideas in the blast furnaces of reality and in the anxious search for the good to try to determine what is potentially fruitful and by what method the possible may advance to the probable and be translated into action. It is necessary also to evaluate such ideas, to examine them as to their acceptability in principle, and to determine if the immediate and particular objective corresponds to the general and superior objective of human progress, otherwise one is in danger of working with means actually suited to the end but following an aim for which it is a bad or a vain thing to work.

Policy, in all its separate branches, has superior duties, as law and ethics have. It may, even more than these, find a basis for its realizations in the teachings of experience, but it can never refrain from considering as such the goals at which it aims. Schiff wrongly conjectured that along such lines the limits of the field of science are surpassed and those of subjective views entered. Science is not a road roller which smoothes all the intellects and reduces them to an equal level. Science admits divergences of principles, methods, and schools. Notwithstanding the most vigilant and scrupulous correctness of its proceedings, science cannot escape, particularly in the economic and social disciplines, a certain amount of subjectivity, which also appears everywhere as an indestructible differentiating element in the evaluation of the most evident and the most carefully gathered facts, even when such an evaluation is made with the intention of holding to the greatest objectivity. If real life is the great crucible in which speculative conceptions are put to the test, this test may, when applied to the end as well as the means, be instructive and fruitful.

Agricultural policy must be a living science, not dead or of limited or compressed vitality; living with every precaution against compromising intrusions, but living. And well has it the right to point out roads still unexplored. But not even on this point has unity of opinion been reached in Germany where even in learned societies duels on the subject are still willingly fought. We note this with regret.

The economic phenomena of the agricultural world in its being and in its becoming—whether spontaneous, stimulated, or compelled—constitutes what we call agricultural economics. We may even call it the statics and the dynamics of life on the land in its economic aspects and processes of production, distribution, and exchange. But even on the name agreement is still missing, and it would be good if every divergence of opinion and use came to an end, not because this question of terminology is in itself of remarkable importance but because the variety of terms does not indicate a mature discipline, and moreover it tends to create confusion and to make difficult a common understanding of the more important subject matter of the science.

The term, rural economics, is used and is honored in France, without exceptions or divergences, but even there its content is still in an undecided and unstable position with respect to agronomy, from which the few agricultural economists have endeavored to detach it, and with which it has a tenacious tendency to remain rooted in the agro-

nomic Institute of Versailles, its first and glorious center, and in the national schools of agriculture. In France, the attempt in research and education to separate the economic from the technical element is, indeed, for our discipline, of a relatively recent date. It was only at the end of the nineteenth century that the teaching of the *economie rurale* began to penetrate the universities, and it was in 1899 that Auguste Souchon, called the year before from Lyon to Paris to give the general course on political economy, was directed to start the new teaching in the law faculty. Up to that time rural economy had been the technical science of what Olivier de Serres used to call the *ménage des champs*. While its students and masters, save the two great exceptions of Hippolyte Passy and Léonce de Lavergne, were all more or less lacking in even a modest economic training, the economists showed a preference to leave the silent problems of the land in oblivion, because they were usually attracted by the more clamorous and lively phenomena of industrial and mercantile life.

Between these two extremes Souchon found his own way, and we must mention him with honor together with René Worms, who one year later followed him along the same lines at the University of Caen.[12] Both of them gave veritable economic content to their courses, and in this way they liberated the science from the embarrassing entanglements in which they had found it bound, profiling its just physiognomy and giving it a more free and sure content. But Worms soon left this field, carried away by a fervor of vehement veneration for sociological studies to which he devoted his most fruitful years, eventually becoming the indefatigable promoter of the International Institute of Sociology until death ended his activities as organizer and student. Souchon found himself almost alone in the field. To his first and estimable work on peasant property, he added his greater work on the labor crisis of the French countryside in 1914.[13] He died in 1922 without leaving any systematic treatise which might constitute an accepted text and establish in a lasting way the point of view so wisely affirmed by him.

[12] René Worms, "L'économie rurale et ses principaux problèmes," *Révue internationale d'enseignement*, June 15, 1900, which is his prolusion. Later he issued *Études d'économie et législation rurales* (Paris, Ve. V. Giard & E. Brière, 1906).

[13] Auguste Souchon, *La crise de la main-d'oeuvre agricole en France* (Paris, A. Rousseau, 1914).

The national tradition of the *economie rurale* still retains the prestige, bright and undimmed, that was given to it in the middle of the nineteenth century by Léonce de Lavergne, who gave his first course on the subject in 1851 at the Agronomic Institute. He corroborated with economic views the agricultural technology which had been taught by Charles Édouard Royer under the same title since 1839 at the Agricultural School of Grignon. The tradition, because of its initial limitation, left much uncertainty in the work of Lavergne's followers: Édouard Lecouteux, Émil Levasseur, Daniel Zolla, François Convert, and in Belgium Émil Louis Victor de Laveleye and J. Piret. Crossing the Alps this tradition descended into Italy where it still has some following. An example is the estimable treatise by Oreste Bordiga. In this work Bordiga adhered to the French tradition in both nomenclature (he repeated the definition of Lecouteux: "science of agricultural improvements tempered by economic opportunities, which teaches the farmer to proceed with his times and with his means of action") and structure, which is partly economic and partly agronomic, and included also some hints of a sociological character. In this compound he once more revealed, together with the inadequacy of the name, the imprecision of the boundaries.[14]

Owing to the absence of real courses on the economics of agriculture in the French universities and to the correlative absence of a group of agricultural economists who, even though restricted in number, if active, might have succeeded in winning a growing influence, a precise clarification of this subject was not provoked. The chair established in 1899 is not properly and exclusively economic. It bears the official name, *économie et législation rurale*, and corresponds, in part at least, to a teaching of positive agricultural law. Those who have occupied the chair, save some exceptions particularly worthy of honor such as Joseph Hitier,[15] have been jurists who

[14] Oreste Bordiga, *Trattato di economia rurale* (ed. 3, Portici, della Torre, 1926). The first part deals with the factors of agricultural production. A second will deal with agricultural policy, and a third, the author states, thus reaffirming his attachment to the Gallic tradition, "should consist of the study of the organization of the agricultural enterprise, but which we have already covered in the first part of *Trattato delle stime rurali*, (ed. 3, Portici, 1923–24)."

[15] Hitier succeeded Souchon in the chair at the law faculty of Paris and held at the same time that of *éco-*

have not been able to make economic studies the solid basis of their preparation but only an elegant superimposed framework. Therefore, the lively and ready forces, capable of leading to victorious conquests on the road traced by Souchon, are wanting; and we can well explain in this way the eclectic conclusion of Henri Truchy who, in commemorating Souchon, deviated from his theme by recognizing in rural economics a duality, economic and technical, and admitted that both aspects may be attacked.[15]

This state of things renders less advisable and safe the adoption of the name, rural economics. But even if this name were the only one and unanimously used to designate the subject matter of agricultural economics, should it be accepted? We do not think so. Even though being opposed to indulging in historical subtilties or literary finesses, and with all our best disposition to "make honest and cheerful reception"[17] to a name which is supported by authoritative use for several decades, we cannot fail to remark that it fails to reflect faithfully the concept which it should render.

Indeed, Étienne Jouzier committed an error in saying that the *maison rurale* is the farm, that is to say the agricultural household, which is the center of agricultural life, the brains and heart of the productive unit. Not the *rus* but the *ager* was the genetic factor for ancient Rome which conceived the *rus* from a purely territorial point of view in contraposition to the *urbs*, and only in the *ager* recognized the economic fundamental element of production, while the *rus* included also construction and areas entirely strange to agricultural production, such as the tranquil Tusculum of Cicero and the jocund abodes of leisure dear to Horace. As the Digestus of Florentinus clearly says: "*Ager* is truly a part of the countryside, that is to say a place in the country, which is kept as common grazing land, as arable land, as flower gardens, or as land planted with trees; *rus* on the contrary is every place in the country outside the city."[18] Therefore, the title, economics of agriculture (*Nationalökonomik des Akerbaues*), used by the first great essayist on this subject, Roscher, is much more exact in historical and conceptual content.

For this reason we think our designation should be firmly held. Moreover, it is used even in England by the writers on this subject,[19] and it is applied to several university chairs already established for this subject. For the same reasons we find entirely correct using the word, rural, in the name of the new science, rural sociology, because it deals not with the economic facts inherent or derived from land production but with the entire complex of material, intellectual, psychical, and ethical life outside the large cities which is socially interlaced and united in the open fields, the farmhouses, and the communities surrounding the church, the school, and the club.

Today agricultural problems occupy the foreground in every country. The atrocious tragedy of the European war brought into full evidence the fundamental value of land and its nutritive capacity. Never as in the present difficulties has the terrible eloquence of facts written such an imposing defense of the importance of land to the life of the people. Nearly two centuries ago Antonio Genovesi (1712–1769) proclaimed the land to be "the first basis and support of mankind,"[20] but this pronouncement is now made with universal consent.

The fervor of action shown by statesmen is not matched with adequate study by men of science. Rather it is only the empiricism of the so-called men of action (*realizzatori*) at the helm. Whether it inspires party directions or is inspired by them instead, whether it broadens its outlook to the general interest or confines itself to a narrow class vision, whether it has innovating tendencies or follows conservative directions, it acts in a relative freedom of orientation or lets itself be dominated by one or the other of the great groups of conflicting interests, namely the landowners

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nomie rurale at the National Institute of Agronomy. We particularly mention his *Les problèmes actuels de l'agriculture* (Paris, Payot, 1923), written in collaboration with his brother Henri, director of the Société des Agriculteurs de France and professor of comparative agriculture at the Institute of Versailles.

[15] Henri Truchy, "La vie et les travaux d'Auguste Souchon," *Révue internationale de l'enseignement*, September–October 1926.

[17] The translator notes that "accoglienze oneste e liete" is from Dante, *Divina Commedia, Purgatorio*, canto 7.

[18] Florentinus, Digestus, bk. 50, title 16, no. 211.

[19] J. A. Venn, *Foundations of Agricultural Economics* (Cambridge, University Press, 1923).

[20] Antonio Genovesi, "Lezione di economia civile . . .," in *Scrittori classici italiani di economia politica*, edited by Pietro Custodi, 16: 326, 329 (Milano, G. G. Destefanis, 1804).

or the proletarian classes, the producers or the mass of consumers.

Only two exceptions restrict this slow reawakening of doctrinal discussion. Germany and Austria, united in a natural and traditional scientific *Anschluss* which political disagreements do not arrest or infringe, have contributed an abundance of single treatises and the various handbooks and *Grundrisse* as well as the more outstanding volumes by Skalweit and Schullern-Schrattenhofen, together with Michael Hainisch's work on rural exodus and agrarian reform.[21] Eduard David, after becoming a minister of the Reich, prepared the second and even more interesting edition of his *Sozialismus und Landwirtschaft*,[22] and Lujo Brentano—who in the marvelous evening of his eighty-three years neither recognized nor admitted any decline in his activity, but with persistent ardor still wrote, argued, admonished, and taught—actually remade, with the addition of an ample chapter on agricultural programs and the price of land, his powerful work on agricultural economics published more than thirty years ago.[23] Side by side with *Agrarpolitik* goes *Betriebslehre*, or farm management, which now constitutes a complete discipline, first elaborated by Friedrich Aeroboe with recognized authority.[24] The other exception is found in the United States where, together with the advancing scientific adolescence of our discipline as evidenced in the new work of the economists, there is a rapidly growing new sister discipline, rural sociology.

The Latin lands, and particularly Italy, appear in this respect much less fertile. Italy has brought only a tenuous contribution to the new doctrinal developments in agricultural economics. Oreste Bordiga and Arrigo Serpieri always dominated the field both in study and teaching, together with some promising and valuable younger men like Guiseppe Tassinari whose new and recent study on distribution of profits in Italian agricultural enterprises deserves special mention.[25] But in these dynamic years they were able to harvest little of the great crop of facts, observations, and themes, which the economic singularities of the historic period offer them in abundance, especially beyond the frontiers of the native country. The political cares, which for a considerable time drew Serpieri away from the more tranquil and less precarious of his usual scientific activities, only left him the possibility of elaborating a collection of monographs on national agricultural policy.[26] On the other hand Francesco Coletti gradually published studies on several of the major questions of agricultural economics which were brought together in one volume.[27]

We still lack especially a fundamental treatise largely based on fresh and living material drawn from countries particularly interested in a world view of old and new problems. But I continue to look to Rome with hope—to the delightful corner of Villa Umberto which welcomes for fruitful work in peaceful surroundings the official representatives of the agricultural life of every country called by the appeal of David Lubin and the generosity of Victor Emanuel III to

[21] Michael Hainisch, *Die Landflucht, ihr Wesen und ihre Bekämpfung im Rahmen einer Agrarreform* (Jena, G. Fischer, 1924).

[22] Eduard David, *Sozialismus und Landwirtschaft* (ed. 2, Leipzig, Quelle u. Meyer, 1922). David added an important chapter on the problem of private ownership of land in which he decisively criticized, insofar as it refers to agriculture, the theory of the progressive concentration of enterprises and the fatal disappearance of small farms reaffirmed by Kautsky in his *Die Sozialisierung der Landwirtschaft* (Berlin, Hofer, 1919).

[23] Lujo Brentano, *Agrarpolitik* (1925).

[24] Friedrich Aeroboe, *Allgemeine landwirtschaftliche Betriebslehre* (ed. 6, Berlin, P. Parey, 1923), and *Betriebswirtschaftliche Vorträge aus dem Gebiete der Landwirtschaft* (Berlin, P. Parey, 1922–25). The works by Ernst Laur and Theodor Brinkmann also deserve mention, and among the syntheses published for schools, the clear and substantial volume by Otto Luberg, *Landwirtschaftliche Betriebslehre* (ed. 10, Berlin, P. Parey, 1925). The study of farm management has been actively supported by the Deutsche Landwirtschafts-Gesellschaft connected with J. H. Thünen, J. B. Lambl, and Wilhelm Göriz and by the numerous German publications on the subject, mostly issued by Paul Parey of Berlin whose merits in respect to agricultural literature won recognition in the form of an honorary doctoral degree.

[25] Guiseppe Tassinari, *Saggio intorno alla distribuzione del reddito nell'agricoltura italiana* (Piacenza, Federazione italiana dei consorzi agrari, 1926).

[26] Arrigo Serpieri, *La politica agraria in Italia, e i recenti provvedimenti legislativi* (Piacenza, Federazione italiana dei consorzi agrari, 1925).

[27] Francesco Coletti, *Economia rurale e politica rurale in Italia* (Piacenza, Federazione italiana dei consorzi agrari, 1926).

study and smooth the way for the best and most rapid advance of the technical and economic progress of the agricultural industry of the world. The white palace of the International Institute of Agriculture, with its well-ordered research divisions and its rich deposit of documents, reviews, yearbooks, statistics, and publications in every language and of every kind, offers the most propitious surroundings of the most suggestive inspiration to the Italian of intellect and faith who may wish to fill the lamented gap with the needed treatise and give it to our science as an offering to the mother country. Let us hope that among the capable may arise a bold student who with adequate preparation will put himself to work in this ideal workshop and in the further development of this science conduct Italy to a place of honor.

THE FOOD AND AGRICULTURAL STATISTICS OF THE REICH FOOD ADMINISTRATION

PAUL T. SANT AND RAYMOND E. VICKERY*

As long as the German Empire followed liberalistic conceptions of economy and allowed relatively free exercise of the forces of supply and demand, except in regard to the import policy, the statistical data necessary for long-term planning of a food economy did not exist. During the time that this conception of economy prevailed, there was no need for gathering extensive and detailed knowledge in the field of food and agriculture. Therefore, agricultural statistics were limited chiefly to data on cultivated acreage, yields of crops, and numbers of livestock. About every ten years a census of agricultural producers was taken which included the general organization of their farms. The information obtained from the producer was treated as secret and, therefore, could not be used for applying individual control measures. In addition to these general agricultural statistics, export and price statistics were also maintained.

As soon, however, as National Socialism inaugurated its policy of long-term food planning, which included directed production control, price stabilization, and the securing of uniform supplies, it was considered that a well-planned and orderly food economy needed the fundamentals of a very detailed knowledge of agricultural production. Upon completion of the National Socialist food policy as characterized by the two big tasks of "the battle of production" (*Erzeugungsschlacht*) and of market control, an inevitable extension of agricultural statistics relative to food and agriculture was required. Numerous statistical investigations concerning operational management and market control were instituted in order to obtain current detailed information about the actual status and trends of the food supply situation. These inquiries were made not only for long periods but also at short intervals and extended from large districts down to the very last producer and food enterprise.

While the National Socialist food policy thus required a much more extensive and detailed knowledge of the economic situation, the Nazi assumption of war threats by powers hostile to National Socialism necessitated smooth functioning of food supply and food distribution which in turn extended the need for further information in the event of another war. The conditions incident to World War I had demonstrated the deficiency of available information

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This article is a personal contribution and does not necessarily represent the views of agencies with which the authors have been, or are now, connected. The data used in the article was obtained from officials of the former Reich food administration (Reichsnährstand). For a short account of German agricultural statistics prior to the end of World War II and agricultural statistics in the United States Occupied Zone of Germany from V-E Day to the end of 1945, see the article by the same authors, "Agricultural Statistics in Germany," *Journal of Farm Economics*, 28:1061–1069 (November 1946).

on food and agriculture. The Germans were compelled in World War I to gather information needed for planning and action while the emergency was arising because the timely collection of this information had been neglected. Such investigations, however, yielded only incomplete and by no means reliable information. A wartime food economy based on such informational deficiency was bound to encounter numerous and serious difficulties.

The experience gained in the previous war convinced the Nazis that carefully planned inquiries relative to food and agriculture would provide the necessary preliminary conditions for successful functioning of food economics in peace or war. In this connection preference was given to investigations yielding information on food production which would permit control by directive and regulatory measures.

Statistical inquires relative to food and agriculture were sponsored by both the Reich bureau of statistics (*Statistisches Reichsamt*) and the Reich food administration (*Reichsnährstand*). The program of the bureau of statistics included chiefly general agricultural statistics. The statistical studies made by the food administration, which form the subject of this article, were largely special inquiries about problems of farm operation and marketing.

The farm operation and marketing investigations made by the food administration covered every agricultural producer and enterprise as to their production figures and market sales. The administration's inquiries covered all phases of processing, storage, and distribution of products as well as the organization, administration, and efficiency of the plants. In summarizing the above information, data were obtained relative to the various food-control agencies and the plans or measures necessary for directing the food economy.

The Farm Record Card. The Reich food administration developed the *Hofkarte* (farm record card) which gave an economic description of all agricultural production units down to a size of 2 hectares. It was inaugurated in 1937 throughout the Reich and was later used in incorporated provinces. It was filled out according to uniform standards by 2.3 million farmers, occupying more than 90 percent of the agriculturally utilized area.

By means of about 150 individual questions the *Hofkarte* recorded information about farm organization, farm enterprises, and operational efficiency. It included a detailed description of the kind of work performed, the amount and allocation of manpower, the size of the farm, the ownership, the type of products raised, the land use, and rotation of crops. Particular care was taken in obtaining information about the yield of all important crops. The data concerning livestock were subdivided into different classes and age groups. The use of agricultural machines, fertilizers and farm manure, and the supply of water and electric current were described, as well as processing plants, special installations, and market sales of all major products. All records on the *Hofkarte* were continued and completed every year. Information on the organization and performance figures of any farm could be obtained from its *Hofkarte* at any time. Farms situated within the 1937 frontiers of the Reich maintained such records for six years.

As a rule, the entries on the *Hofkarte* were made by the local farmers' leader (*Ortsbauernführer*) of the National Socialist Party, working in collaboration with the owner. He chose suitable persons from the village for assistance. Owners of large farms were allowed to fill out the *Hofkarte* themselves and have it checked afterward by the local farmers' leader. This leader collected the cards in a binder which he sent to the county farmers' association (*Kreisbauernschaft*) where they were carefully checked and copied on filing sheets. The binder with the original *Hofkarte* was then returned to the local farmers' leader. Copies were kept by the local farmers' association (*Ortsbauernschaft*) and the county farmers' association, and a third copy was given to the proprietor for his own use.

The *Hofkarte* was also used in economic counseling. It enabled the adviser to compare the performance and trend of achievements of all producers in a village and to select inefficient farms in need of additional counsel and spurred owners and managers of the farms to greater efficiency by comparing the production performance of their farms. By supplying the basis for economic counseling, the *Hofkarte* formed an efficient guide for directing agricultural production, although farm advisers did not exert any compulsion with regard to either cultivation or production of fixed amounts of certain products. The farmers were free to manage their estates as they wished, but by propaganda, economic counseling, incentive measures, and price policies they were urged to run their farms efficiently

with a view to meeting the requirements of the public economy.

While the *Hofkarte* served principally to promote production, it was used also in assigning to every agricultural producer fixed delivery quotas for his farm produce, particularly grain, potatoes, hay, straw, and milk. By means of such delivery quotas (*Ablieferungsverpflichtungen*) the Nazis ensured an economic balance between the use of these products for feeding purposes on the farm and the supply of the nonagricultural population with bread, eating potatoes, and butter, etc. Total requirements of the nonagricultural population including those of the armed forces were known, and with the help of these statistics on cultivated acreage and crops, etc., the quotas were distributed to the regional (*Landesbauernschaft*) and county farmers' associations and to the individual producers. The most difficult part of this job was the fixing of delivery quotas for each particular farm. Because the delivery quotas—based on total requirements—were comparatively high, they constituted a considerable burden upon agriculture. A fair distribution of delivery quotas corresponding to the actual productive capacity of each farm was greatly simplified by such records. The *Hofkarte* was also used to allocate farm requisites such as fertilizers, oil cake, agricultural machines, coal, gasoline and oil, binder twine, and even loans and other necessities on a basis of efficiency and farm requirements. It was not used as a basis for taxation. From the standpoint of delivery quotas incorrect or low production figures given in this record would be prejudicial to the proprietor from the standpoint of farm supplies. Entries in the *Hofkarte* were checked against data obtained by the Reich bureau of statistics and by the *Ortsbauernführer* to ensure accuracy.

The County Farm Economy File. Data concerning the various county farmers' associations, as far as they were important to food and agriculture, were assembled in the county farm economy file (*Kreiswirtschaftsmappe*) of the Reich food administration. As a rule, this information was not based upon the administration's own inquiries but upon the agricultural statistics of the Reich statistical bureau. This file jointly developed by the two agencies made it possible to utilize practical, uniform, and detailed official agricultural statistics, all the way down to the offices of the county farmers' associations. Prior to this there had been no place in which all the statistical material of an individual county had been assembled. The county economy file contained the results of the censuses of population, professions, and enterprises, various kinds of crops, size of cultivated acreage and numbers of livestock, intermediate crops cultivated, production and yield per hectare, production and use of milk, types and number of agricultural machinery, and standard values of property for the purposes of taxation (*Einheitswerte*). On special sheets were indicated the relative percentages of land used for different crops, the number of cattle per unit area, etc. Other sheets were arranged for statistical investigations of the Reich food administration.

The sheets illustrated how the agricultural situation had developed in the county. They continued over a number of years and were published by the Reich bureau of statistics as official agricultural statistics. Copies were distributed to the county associations, the regional farmers' association, and the Reich food administration in Berlin. Production figures contained in the county economy file were used as a basis for the allocation of manpower, draught cattle, agricultural machines, fertilizers, fodder, etc., in accordance with performance and capacity of the farms, and for the distribution of delivery quotas among the different county farmers' associations.

Bookkeeping statistics. The experience of World War I and the requirements of National Socialist economy also led to the development of agricultural bookkeeping statistics as a means of directing the food control. It was recognized in Germany that the data contained in these statistics represented a particularly valuable source of information. Even before the first World War, systematic evaluation of the data furnished by bookkeeping had been started. At that time, however, only large estates normally kept books; the evaluation was limited, therefore, to problems of private economy and management of the estates under consideration. The development of an agricultural bookkeeping service (*Landwirtschaftliches Buchstellenwesen*) was considered necessary if records were to be kept by a large number of farmers. As a rule, a farmer was not able to do all the bookkeeping personally but utilized the services of a bookkeeping office (*Buchstelle*). Under this system, a farmer needed only to take simple notes showing receipts and expenditures, banking transactions, etc., and to

send these each month, together with vouchers, to the bookkeeping office which examined the accounts, transferred them to the ledger, and established the final account at the end of the year. There were about 500 bookkeeping offices as compared with a maximum of 30 before the first World War. In the years prior to 1933, bookkeeping offices were established at agricultural corporations, associations, cooperatives, unions, and private enterprises. Coordinations of these various holders of bookkeeping offices under the direction of the managing office of the German agricultural council (*Betriebsstelle des Deutschen Landwirtschaftsrates*) resulted in a uniformity of bookkeeping and particularly of bookkeeping statistics. After establishment of the Reich food administration, the bookkeeping offices of dissolved agricultural corporations, etc., were transformed into private enterprises, and at the same time they were all united by the Reich association for agricultural bookkeeping and control (*Reichsverband für Landwirtschaftliche Buchführung und Betreuung*). This association was affiliated with the Reich food administration and was subject to its control. The bookkeeping offices were required to send abstracts of the accounts on a special form sheet to the Reich food administration. In addition to this statistical sheet, corresponding standard form sheets for bookkeeping, issued by the printing office of the Reich food administration, and a universally applicable accounting scheme (*Kontenplan*) were used.

In 1944 about 50,000 farms and estates were associated with the 500 bookkeeping offices. The Nazis succeeded in having bookkeeping records adopted by small and medium-sized farms. Extensive propaganda from the Reich food administration in 1937 induced the owners of several thousand small farms with poor soil to keep farm records. During later years agricultural bookkeeping offices were introduced in the newly acquired Eastern Provinces under the guidance of the Reich association for agricultural bookkeeping and control. In order to obtain reliable data on less productive farms, special interest was taken in farms which were situated in mountainous districts. The number of records kept by the owners of small farms was sufficient for drawing conclusions of a general character from the data furnished by them. In 1924 3,000 farmers maintained farm records with the managing office of the German agricultural council. The number of farms increased every year, and in 1933, when the bookkeeping statistics were taken over by the Reich food administration, it had grown to 7,000. In 1944 the Reich food administration kept the bookkeeping accounts of 14,000 farmers. On special statistics relative to agricultural debts, 17,000 farm records were taken into account. The selection of farms was so made that such farms as were considered for statistical purposes would be typical of a large number of farms and in accordance with definite regulations of the Reich food administration.

The bookkeeping statistics differed from the farm record cards in that they referred to only a comparatively small number of producers, but they comprehended many more details than could be recorded on a farm record card. About 500 individual entries for each farm were made as part of the bookkeeping statistics.

The form sheet that the bookkeeping offices used when making abstracts for the Reich food administration's statistics contained a detailed description of the farm and information about the natural and economic factors influencing its production capacity, the values of crops and livestock, the relative percentages of different crops and yields per hectare, the number of classes of livestock, the receipts and expenditures, and the depreciation and changes of actual stock. For the principal crops, average prices were obtained and recorded. Preliminary reports were prepared by the bookkeeping offices so that the Reich food administration could be informed in September as to the results of the fiscal year ending the previous June 30.

For statistical evaluation, the farms were divided into about 400 groups according to the region in which the farm is situated, the quality of the soil, and the size and intensity of cultivation. Within the groups thus formed the farms were further subdivided according to certain characteristics of management, depending on the problems to be solved. A systematic evaluation of bookkeeping statistics gave valuable information for advising farmers. By comparing the accounts of efficient and inefficient farms, the conditions required for high production figures could be ascertained and used in advising inefficient farms.

Bookkeeping statistics were used to determine how the price of a product influenced original agricultural production (*Urerzeugung*) and how a given relation of prices and cultivation of

certain crops could be promoted and that of other crops repressed.

Reporting Service. New entries in the *Hofkarte* were made once a year, and the results of bookkeeping statistics were summarized once a year. In order to obtain current information, the Reich food administration established a reporting service. For making such current investigations about 20,000 farm reporters were selected. This reporting service originated in the former price reporting office of the German agricultural office (*Preisberichtsstelle des Deutschen Landwirtschaftsrates*). By the introduction of agricultural market control and planned food economy, the old reporting service was changed substantially. Investigations were made at frequent intervals and as quickly as possible to gather basic numerical data for planning and directing measures in food economy. In order to permit generalization of the statistical results, farm reporters were selected so as to represent a typical picture of the agricultural situation in the district. The size of farm, types of farming, and number of reporting farmers in the same proportion as existed in the region were factors considered in selecting the reporters through the regional farmers' associations. Training meetings for the reporters of the Reich food administration's reporting service were held for a number of years, with only a limited number of reporters gathered at one time in order to provide thorough and efficient training. Before beginning his activities each reporting producer filled out a reporter's questionnaire (*Betriebsfragebogen*) which included the most important economic data about the management of his own farm. The questionnaire indicated kind of enterprise, regional farmers' association, size of farm, including rented acreage, total acreage under cultivation, area in grain, potatoes, sugar beets, and other root crops, green fodder, meadows and pastures, and taxation value (*Einheitswerte*) of agriculturally used land.

Inquiry sheets with instructions were sent to each reporter by the administrative office of the Reich peasants' leader via the regional farmers' association. When corresponding with individual reporters, care was taken to create a personal relationship between the reporters and the administrative office of the Reich peasants' leader and to emphasize the responsibility of giving correct and complete answers to the questions. The inquiry sheets were sent out in duplicate; one copy of the completed form was kept by the reporter, and the other copy was forwarded to the regional farmers' association for examination and compilation. Inquiries made by the reporting service of the Reich food administration were evaluated by the administrative office of the Reich peasants' leader. By applying correction factors the final values computed were considered as representative of the whole region. The principal inquiry made by the Reich food administration's reporting service was the monthly investigation of the farmer's undelivered stocks of grain and potatoes in percent of the harvest. By comparing this information with the total quantities grown, a basis was provided for judging the supply situation, the quality of harvested products, the moisture content, and the grain and potato losses and prospective fodder supply. Intentions relative to the cultivation of certain crops were determined in August of each year prior to fall cultivation and in February prior to spring cultivation. If there was considerable winter damage to cultivated crops, the inquiry was repeated after the proposed spring cultivation in March. If the results of these inquiries indicated inadequate planting of any particular crop, action was taken through propaganda or by mobilizing special resources and implements to achieve desired ends. It was possible, therefore, to estimate at an early date the next year's food supply in terms of the acreage under cultivation.

In addition to the usual current investigations, special inquiries were made for very urgent and important investigations on problems of farm management. In 1938 an inquiry concerning the manpower situation and its development was made, and data on farm household consumption of bread grain, potatoes, milk, butter, and hogs were gathered.

Statistics on Farmers' Consumption of Their Own Produce. While the food consumption of urban households had been studied thoroughly, investigations of rural households had only been made on particular occasions. The lack of sufficient knowledge about the details of rural households was felt more and more as planned and controlled food economy was developed. Beginning in 1937 the statistical bureau, in agreement with the food administration, started to investigate expense accounts of farm laborers' households, and the food administration made current inquiries about food consumption in 250 households. Consumption figures were desired which showed the difference resulting from

varying habits in various regions, by size of farm, level of income, size of family, etc., and their influence upon household consumption.

The selection of farmers for cooperation in gathering the rural household statistics was made by the agricultural bookkeeping offices from small and medium-sized farms up to 50 hectares. Only country women who were interested and showed an understanding for this kind of work were selected to do the reporting. The peasant's wife had to weigh each quantity of food in order to know the exact amount used and had to keep a record of the number of persons fed. The reporting farms were selected in such a manner that they were distributed among districts of different economic characteristics and types of farming. Quite often great differences were found between farms of the same economic districts when there were variations in traditions, customs, and habits, as well as in the actual natural and economic situations. In the northern parts of Oldenburg where the marshes favor extensive cattle breeding and a highly developed milk economy, the structure of consumption was quite different from the poorer southern districts of dry land where heaths and moors characterize the landscape. Similar contrasts were found in Bavaria, between the Alpine pastures in Upper Bavaria and the poorer districts of the Bayerischer Wald. In Württemberg the standard of living on the farms situated in the Rauhe Alb was much lower than that in the fertile region of Allgäu. The farmer's wife tabulated goods as consumed only at the time of actual consumption. Purchases were recorded in order to ascertain the expenses paid out in cash.

The inquiry sheets for a year's period were bound together and after being completed were detached and sent to the agricultural bookkeeping office, which checked the reports and forwarded them to the administrative office of the Reich peasants' leader. The period for which the inquiries were made corresponded to the fiscal year running from July 1 to June 30, as in the case of agriculture. In this way the data of household consumption could be interconnected with those of general agricultural bookkeeping.

The inquiry sheet was laid out as simply and concisely as possible in order to minimize the paper work. A total of 35 food items were indicated, of which 10 were of vegetable and 25 of animal origin. For a series of foodstuffs, including cheese, sausage, pulses, vegetables, and fruit, kind and quality were specified. In one column of the sheet, total consumption of the various foodstuffs during the week was tabulated, and in a second column was shown the total consumption that had been purchased, the difference being the amount produced on the farm.

Marketing Statistics. The Reich food administration, through 10 central marketing associations (*Hauptvereinigungen*) for grain and fodder, livestock, milk and fats, horticulture, viticulture, brewing, sugar and fish, and the candy industries (*Wirtschaftliche Vereinigung der Süsswarenwirtschaft*) and the commissioner for the distilling industry (*Beauftragter für die Trinkbranntweinwirtschaft*) gathered a lot of statistical information, an analysis of which would provide a fairly complete insight into the processing and marketing of food.

One of the principal investigations in the field of grain economy was the evaluation of sales notes and delivery certificates (*Ablieferungsbescheinigungen*) that were made out each time an agricultural producer sold his grain. The principal purpose of these receipts was to check the fulfillment of each producer's delivery quota, but when taken together they gave an uninterrupted survey of the actual status of total grain delivery. From the fiscal year 1934–35, information was available as to how much grain, specified according to different kinds, each agricultural producer delivered. Information was also available as to the quantities of grain which were marketed each month since 1934 by local, county, or regional farmers' associations.

The quantities of milled bread grain, specified as to commerical milling and wage and barter milling, was ascertained each month by questioning all milling enterprises; while mill products, rye and wheat flour, ground grain for baking (*Backschrot*), ground full-corn (*Vollkornschrot*), flour for feeding, semolina and bran, were ascertained only at mills with more than 750 metric tons allotted basic turnover (*Grundkontingent*). As 90 percent of the commercial milling was done by these mills, a partial survey provided a reliable picture of the production of flour and other milling products.

After 1937 inquiries were made monthly relative to the stocks of flour and flour products in bakeries, bread factories, alimentary paste factories, and biscuit factories. The same information was required from confectioners' shops once a year.

In addition to these inquiries, consumption statistics were reported by the central marketing associations with peeling mills (*Schälmühlen*) and by manufacturers of coffee substitutes, and the monthly quantities of rye, oats, barley, peas, sugar-beet chips, industrial chicory, and industrial figs that were processed were ascertained.

Processing of potatoes as well as production and turnover of potato products were determined by inquiries which the central potato marketing association made, beginning in 1937, at all starch and potato flake factories and at producers of baking powders, covering quantities of the dried potato chips, potato flakes, flour made from rolled potato flakes (*Kartoffelwalzmehl*), potato starch flour, starch syrup, dextrine, potato pulp (*Kartoffelpulpe*), diastasis containing baking powder, steepening flours, dough leaveners, etc., that were manufactured.

The Reich statistical bureau determined sugar production as expressed in raw sugar value, but the central marketing association for sugar made monthly inquiries of each sugar factory relative to the processing of sugar beets and the production of sugar, and sugar byproducts, stocks and sales.

Through an evaluation of county sales notes (*Landschlussscheine*) which were made when livestock were sold for slaughtering, deliveries including live weight in the different production centers were ascertained. It was thus possible to supervise and control markets and equalize local and time differences in supply and demand.

Milk production statistics collected by the bureau of statistics covered milk production and utilization, including consumption on farms, delivery to creameries, sales direct to consumers, use as feed, etc. The central marketing association for milk and fat made a monthly inquiry at all dairies, creameries, and milk collecting stations relative to the purchase and sale of milk and processed products like cream, butter, cheese, etc. The refined quantities of raw tallow and suet and the sale of finished products by tallow melters were likewise recorded every month.

In order to complete yearly inquiries made by the Reich statistical bureau on production, the central marketing association of horticulture inaugurated a monthly inquiry in 1935 at all processing plants relative to the goods produced by them. At first these inquiries were intended for administrative purposes, but they yielded information on the supplies available in these plants, and more recently were used to control the allocation of raw material. Beginning in 1939 production of dehydrated vegetables and fruit was determined. Annual production of raw fruit juices, fruit syrups, and fruit wines was also reported.

The central marketing association of the German brewing industry investigated the amounts of brewing grain and brewing malt available at breweries and malting plants, including monthly consumption of malt, hops, and sugar, quantities of beer produced, and monthly production of yeast byproduct.

The central marketing association for eggs ascertained stocks of eggs and poultry in so far as they were controlled and allocated goods.

The central marketing association for fish collected data every two weeks on the available amounts of canned fish and fish preserves. Once a month each producer reported production and available stocks of fish meal and the amount of raw material needed for that production.

Inquiries in the field of the candy industry were comparatively numerous and referred largely to production and sales figures and to the amount of raw material used.

Methods of Ascertaining Consumption. While it was possible to draw some conclusions relative to food consumption from the data just outlined and particularly from the bookkeeping statistics, the reporting services, the flour milling statistics, and the marketing statistics, this information did not give an exhaustive picture of food consumption that was satisfactory to the Nazis. More accurate and complete information was considered an essential premise for a well directed and planned food economy. Due to the great variation in consumption habits caused by differences in agricultural production, structure of the population, and standards of living, it was not considered sufficient to have only total consumption for the whole Reich in kinds of food. Data on food consumption in all parts of the Reich by urban and rural populations were deemed essential. The ascertaining of food consumption, however, was more difficult than all other agricultural investigations, since the family household is practically impenetrable to statistical investigations. As a rule, therefore, food consumption, with the exception of some products, could only be ascertained indirectly by combining the results of several other inquiries.

The ascertaining of food consumption for the population as a whole was comparatively easy.

The bases of this investigation were the statistics of inland production, foreign trade, and the supply situation, all of which had been much extended and improved for the purpose of market control. Taken collectively this information gave the total amount of foodstuffs available each year. Of the available supplies, deductions were made for the quantities used for seed, fodder, and industrial purposes and for losses caused by spoilage and storage. The amounts of seed, waste, and storage losses were estimated fairly accurately by factors developed through experience. However, only a rough estimate could be made of the foodstuffs used as fodder, although later good approximations were made of the fodder consumption by extending the computations of fodder requirements based on number and performance of livestock. Total food consumption of the whole population was obtained by diminishing the available amounts by the quantities needed for seed, fodder, and technical purposes and by the ordinary losses.

The ascertaining of regional figures was more difficult. Foreign trade statistics had to be replaced in the different regions by inland traffic statistics which were not too well developed. In most cases zonal subdivision did not correspond with the political provinces of the Reich which had to be used for investigations in the field of food economy. Feeding habits were quite distinct in different regions and not always easy to recognize. However, extensive comparisons of the values found for regional consumption with total consumption ascertained for the whole Reich and comparisons between corresponding figures of neighboring regions furnished a good check in computing regional consumption. Consequently, the computations of regional consumption were considered only as estimates which, after all, were sufficiently exact to be used as a basis for planning in food economy. Differentiation of food consumption as to the rural and urban population was not without difficulties, which were further accentuated when consumption was to be computed by regions. One of the greatest difficulties of this problem was that the number of self-suppliers was not accurately known and varied with the kinds of products concerned.

In computing the consumption of bread grain, information was gathered on the amount used for seed, yearly delivery quotas of producers, the quantities of *Hinterkorn* or aftergrain (following the decree forbidding the use of bread grain for feeding), and on the amounts unfit for human consumption due to excessive moisture. In ascertaining the regional amounts of such grain, bookkeeping statistics furnished sufficiently exact data, as well as the amounts formerly used as fodder. After having deducted these quantities from the production, and considering the amount of stocked supplies, the private food consumption of agriculture was found. In ascertaining bread-flour consumption in agriculture, the quantities handled by hired and barter milling (peasant milling) and the information reported by the mills was of great importance, but in all cases where agricultural producers prepared part of their supply of flour and ground grain for baking purposes within their own mills, the milling statistics failed to give the complete picture. Since, in addition to consumption of home-grown products, bread or flour was also purchased, it was necessary to refer to statistics about peasant household consumption. By a combination of results derived for all these different sources, which partly checked each other, a fairly exact picture of bread-grain consumption or of the consumption of bread and flour by the agricultural population was obtained for certain districts.

Bread and flour consumption by rural dwellers in different regions was computed from the statistics of commercial milling, changes in stored flour stock, the traffic statistics, the reports of the mills on the amounts of flour shipped, and the inquiries concerning processing and sale of flour. A small part of fodder grain in the form of oat flakes, ground barley, pearl barley, and coffee substitutes was also used for human nutrition. Total consumption in the Reich territory was given by manufacturers' reports. Regional consumption was estimated from household statistics of the Reich statistical bureau and the consumption investigation of peasant households.

The data available for ascertaining potato consumption were less informative, since a lot of the potatoes went directly from the producer to the consumer. For that reason current potato consumption was not computed accurately, although approximate values of human potato consumption were determined. The farm self-supply of potatoes was established from household consumption statistics, from extensive inquiries made by the reporting service of the Reich food administration, and from the bookkeeping statistics. Urban consumption of potatoes was based upon the evaluation of sales notes and con-

trol certificates and on the household consumption statistics of the Reich statistical bureau.

Meat consumption was determined largely from official slaughtering statistics. The total number of inland animals slaughtered represented the whole production of slaughter cattle, but regional production figures could not be derived from these slaughtering statistics, since cattle produced in one region may be slaughtered in other zones. The number of livestock taken into consideration when computing meat production could only be estimated. Exact data relative to the number of animals sold in a certain zone could be gathered from the county sales notes and the sales accounts. Animals slaughtered by the farmers themselves, particularly hogs, were obtained through investigations made by the reporting service of the Reich food administration and included information on weight by regions. From the number of slaughterings and the slaughtering weight, the proportional weight share of meat and slaughter fat was computed. These figures, supplemented by statistics of foreign trade and the changes in available stocks of meat and canned or preserved meat, permitted the determination of total meat consumption for the Reich as a whole and the proportion supplied by the various kinds of animals. In computing regional meat consumption, inland shipping and delivery of meat products were taken into consideration. Because the establishment of consumption habits, differentiating between city and county populations or between self-suppliers and non-self-suppliers, presented greater difficulties, especially in the middle and western parts of Germany, it was necessary to restrict comparisons to counties with prevailing peasant population or to a comparison of city and industrial districts.

Edible fat is composed of slaughtering fats, margarine, artificial edible fats, edible oils, and dairy fats. Production of margarine and edible artificial fats and oils was taken from the monthly statistics of the processing industry, which included information relative to changes in stocks and sales to different regions. Only general indications as to regional consumption could be obtained from household accounts.

In ascertaining dairy fat consumption, the inquiries of the Reich statistical bureau on production and utilization of milk on the farm were considered in conjunction with the statistics about processing and utilization of milk by the dairies. The dairy statistics, on butter and cheese in particular, gave only incomplete information on the regional distribution of supplies, which was inadequate to determine actual regional consumption. The farm consumption was established with some correctness, because in addition to consumption of home produce, the quantities of milk and dairy products returned from the creameries to the farmer was taken from the dairy statistics. Consumption of whole milk in different regions and particularly differentiation between fresh milk, butter, and cheese, was obtained from peasant household accounts. In ascertaining consumption in nonagricultural districts, only estimates could be established by regions.

TWO MARYLAND FARM LEASES

WILLIAM D. HOYT, JR.

Maryland Historical Society, Baltimore

In the collections of the Maryland Historical Society are two documents which throw light on the leasing of Maryland farms during the nineteenth century. The papers show differences which may be due to the time element (seventy-one years apart), the sections of the State (Harford County in the north and Charles County in the tobacco section of the south), or the types of agreement (straight lease and partnership). Both items include interesting details for students of agricultural history.

The Harford County indenture between Richard B. Dallam and Winston Smith, dated October 11, 1804, is a straight lease of property for seven years, with an annual payment of $250. Dallam stipulated that only a third of the cleared land was to be planted in corn, that no more than 20 bushels of oats was to be seeded, and that the fruit trees were not to be damaged.

The Charles County agreement between Olivia Floyd and William Howard, dated December 19, 1875, is a partnership agreement for one year,

renewed for three successive seasons by new signatures. The crops were to be divided equally, and the duties of each partner are set forth with considerable particularity. Items which will be noticed by soil conservationists are those providing for the filling of water washes and gullies with brush and prohibiting the working of wet land.

The first document is in the Dallam Papers and the second in the Miscellaneous Manuscript Collections of the Maryland Historical Society.

THE HARFORD COUNTY LEASE

This Indenture made this 11th day of October 1804 between Richard B. Dallam of Harford County of the one part and Winston Smith of said County of the other part Witnesseth that the said Richard B. Dallam for and in consideration off the Rents Covenants and agreements hereafter mentioned and reserved have leased and to farme let to the said Winston his plantation adjoining Boothby Hill with all the Improvements thereon for the Term of Seven years commencing on the 1st January 1804 and by these presents doth lease and to farme let unto the said Winston the said Farme for the said Term which will be full and complete on the 1st January 1811. In consideration whereof the said Winston doth covenant and agree with the said Richard B. that he will annually and every year on the 1st January pay unto the said Richard B the sum of Two Hundred and fifty Dollars which sum the said Winston doth hereby Promise and Oblige himself to pay without trouble or delay to the said Richard B and the said Winston doth further covenant and agree that he will not Cultivate more than one third of the cleared Land annually in Corn and that he will not seed more than Twenty bushells of Oats on said farme and that he will suffer no waste of Timber or injury to the soil more than is unavoidable from Husbandry—and the said Winston doth also covenant and agree that he will be cearfull of the frute Trees suffering no Stock of any kind to run in the orchard, and in every other respect to guard them from injury and at the expiration of his Term he will deliver up the Farm in good order and repair. In Witness Whereof the parties have hereunto set their Hands and Seals the day and date above. It is understood the said Winston is not to have the Field called High Point Field & Improvements. It is understood that the said Winston is not to let any of the Fodder Husks or Straw goe off the place—

Witness	Wn Smith (Seal)
Zaccheus Card	Richd. B Dallam (Seal)

THE CHARLES COUNTY PARTNERSHIP

This memorandum of Agreement, made this nineteenth day of December in the year eighteen hundred and seventy five, between Olivia Floyd of Charles County, State of Maryland, of the one part and William Howard of same State and County of the other part, witnesseth,

That the said Olivia Floyd agrees to form a partnership with said William Howard to work the farm of Sarah Floyd called Rose Hill in Charles County, State of Maryland for the year eighteen hundred and seventy six.

The said Olivia Floyd agrees to furnish team implements and the land; and said William Howard to furnish labor.

The crops to be equally divided and shipped by said William Howard for the mutual benefit of said Olivia Floyd and William Howard

No straw top fodder or shucks are to be taken off the farm by said William Howard, or any of the said farm workers except in farmer like manner, and the fields in regular rotation one field in corn and tobacco.

That the said William Howard will seed clover furnished by said Olivia Floyd and in the manner required by her

That the said William Howard will not take stock of any kind to pasture, nor keep upon the said farm.

That the said William Howard will keep all the fences and gates on said Farm in good repair, and that he will use for such purpose, and also for fire wood only such timber as may be directed and pointed out to him, by said Olivia Floyd

That the said William Howard will fill the water washes and gullies with brush, leave no part of the field uncultivated, nor sub tenant the same or any part there of.

That the said William Howard will not work any land wet or out of order on the above farm

The said Olivia Floyd reserved to her self the right of riding over and inspecting the above farm.

And the implements and team when not in service on the farm, to be at her command; neither implements or team to be taken off the farm without her sanction.

The implements to be kept in order by said William Howard such as cart bodies, hoe handles axe helves and so forth

Black smiths work to be furnished by said Olivia Floyd.

Any implements destroyed by carelessness on the part of hands, to be accounted for by said William Howard at the end of the year

The said Olivia Floyd agrees to furnish half of the timber for making tobacco hogsheads, and also to furnish said William Howard his board, for his attention to matters on the farm and around the house generally. Carpenters tools to be furnished by said Olivia Floyd, for work on the farm, to be carefully used and taken care of by said William Howard. And also said William Howard will throw down and thoroughly rebuild all rail fence, and repair all brush fence around the field worked by said William Howard in corn and tobacco.

That the said William Howard will cut and haul fire wood for use at the house.

That the said William Howard will furnish his own horse for his use

That the said Olovia Floyd and William Howard will raise sheep and hogs on halves.

That the said Olivia Floyd agrees to furnish half of the grain for seeding.

That the said Olivia Floyd and William Howard agree to give each other Six months notice of dissolution of partnership.

The said Olivia Floyd agrees to furnish William M. Howard money to pay hands for the year 1876.

Witness our hands and seals this nineteenth day—December 1876 [1875].

Olivia Floyd. SEAL
W. M. Howard. SEAL

We agree to be guided by the above rules for the year 1877.

Witness our hands and Seals this 30th day of December 1876.

Olivia Floyd. SEAL
W. M. Howard. SEAL

January 5, 1878. Witness our hands and seals.

Olivia Floyd. SEAL
W. M. Howard. SEAL

MARC BLOCH AND RURAL HISTORY

G. Debien

Cairo, Egypt

It is a particular homage that we pay here to the memory of Marc Bloch (1886–1944), because it is impossible to estimate all that the field of rural history in France owes to his direction, to his learning, and to his impetus; and it is also impossible to evaluate how highly prized his friendship was.

In the midst of so much destruction and so many deaths, Bloch is one of the greatest losses and the most deeply mourned. And those who know the place that he held among research workers, both young and old, who try to comprehend our past, will understand how the first news of his death brought utter despair and benumbment. They doubted it at first. However, he fell on June 16, 1944, shot by the Nazis on the bank of the Saône River, and the details that came later merely supplied the story of his last activities and sufferings.

Marc Bloch was born at Lyon in 1886 where his father was professor of ancient history on the faculty of letters. Later his father went to teach at the École Normale and the Sorbonne. Marc Bloch entered the École Normale in 1905; from there as a fellow he went to Leipzig and Berlin and thence to the Thiers Foundation to pursue his own studies and to initiate himself in the methods of the medievalists (1908–1912). The war of 1914 found him a professor at the *lycée* in Agen, and he rose from the rank of sergeant to captain in the infantry. In 1919 when the French began to reestablish the University of Strasbourg, he was chosen professor of medieval history. There was much to be done in laying the foundation for this center in Alsace which had been held by the Germans since 1871. Bloch worked there eighteen years with an enthusiastic group of students who will long remember his teaching. He went to the Sorbonne in 1937 as professor of economic history.

Bloch's career will make those who delight in

classifying scholars according to well-defined specialties somewhat uneasy. He was a medievalist, a social historian, an economist, and an historian of agriculture.

His first work, *L'Île-de-France, les pays autour de Paris* (Paris, L. Cerf, 1913) was essentially a long fine essay of bibliographical orientation. The war greatly obstructed its distribution, and part of the influence that it should have had was lost in the din of war. His *La Société féodale: I, La Formation des liens de dépendance; II, Les Classes et le gouvernement des hommes* (Paris, A. Michel, 2 vols., 1939–1940), through a like misfortune, will suffer the same fate. If events did not diminish his true import, they at least dulled the main effect of his work.

His doctoral thesis, *Rois et serfs: un chapitre d'histoire capetienne* (Paris, É. Champion, 1920) and his large book, *Les Rois thaumaturges; étude sur le caractère surnaturel attribué à la puissance royale, particulièrement en France et en Angleterre* (Strasbourg–Paris, Librairie Istra, 1924) were works of wide ramification by a historian concerned with underlying problems, ideas, and beliefs. The perspectives of social and economic history that he delineated in his thesis and of mores and social history in his *Rois thaumaturges* led him to examine some leading questions that always remain a little apart from the easy paths. Thus far Bloch remained a medievalist, a historian of medieval social groups. It is his longest work, but it is not important for our present purpose.

Bloch's *Les Caractères originaux de l'histoire rurale française* (Paris, Les Belles-Lettres, 1931) placed him quite abruptly at the head of the historians of the French countryside, although the contents of the book do not correspond exactly with its title and are not a true résumé of the life of the fields. It was rather a rapid survey of the evolution of rural classes—nobles, bourgeoisie, and peasants. In truth, it is the subject matter of lectures that had been delivered before an audience unfamiliar with the subject. But the pages contain much that is essentially new along two lines: they point out the conclusions of all the theses of the school of human geography and of a thousand particularized studies in local periodicals; they open the horizons of further research. If Bloch, following so many others, continued to speak rather lightly of the seigneurial reaction at the end of the eighteenth century, and if, in order to work rapidly, he deliberately put aside the very difficult agricultural history of the nineteenth century, he showed so captivating a fervor in the presentation of extremely difficult problems and indicated so clearly in what spirit and under what cautious disciplines research must be conducted, that his book was a general rejoicing and a promise. One felt that the effort had been intensified in order to make better known and better understood the differences in rural landscapes that the least experienced eye observes in crossing France from north to south or from east to west. In Bloch's mind it was merely a hasty sketch that expressed only a part and only one interval of his thought and learning, and shortly before his death he was thinking of preparing a second edition that would really have been a totally new book.

It was very slowly and by a projection of his medieval studies that Bloch arrived at the study of the fields, the furrows, the roads, the hedgerows, the villages, and the people who lived directly on the soil. Without being in on the secret of his train of thought, I believe that he was approaching it by a detour from seigneurial history. Through the investigation of the economic aspect of the seigneurial regime, he found himself in the midst of the different aspects of rural history. He understood that it called for the plumbing of the greatest depths of the past and present and that it must contain developments which, even though revealed dimly from the backwash of centuries, are no less vital than some of the burning problems of our times and of France.

Whatever the brilliance and the strength of the example set by his *Caractères* were, it is not chiefly through this study that the influence of Bloch is felt. The most valuable of his contributions as a rural historian, like the most lasting side of his teaching, is outside of books, his greatness was his *élan* and direction, his genius for ideas, his kindness in helping others, and his simultaneous grasp of the past and the contemporaneous. The printed evidence of this directing, encouraging, and correcting is recorded in the *Annales d'histoire économique et sociale* that he founded with Lucien Febvre in 1929. This publication was his atelier, a workshop with large windows that permitted all eyes to look in, and his office as consultant on historical matters during the eleven years that he was one of the directors and was able to present his views there.

This singular impetus, this prolonged role as an educator, does not appear at all in Bloch's more or less lengthly essays such as "La Lutte pour l'individualisme agraire dans la France du xviii[e] siècle," 2:329–381, 511–556 (1930), "Le Problème de l'or au moyen âge," 5:1–34 (1933), "Avènement

et conquêtes du moulin à eau," 7:538–563 (1935), and "Economie nature ou économie argent, un pseudo-dilemme," 11:7–17 (1939) which appeared in the *Annales*, for these writings would have had entirely similar repercussions no matter in what historical periodical they appeared. These are discussions and researches on important ideas and developments, studies of both illumination and synthesis, but which occasionally have a rather abstract turn and are not always adequately condensed. Above all they are valuable for the reinterpretations of subjects perfectly fitted into historical settings, the precise and penetrating analyses of words and concepts, and the instructive comparisons.

Bloch was so distinguished for his articles on historical criticism that far too little emphasis has been given to his many short but pertinent comments that appeared under very diverse headings in all the nooks of the *Annales*. They are his commentaries on the works on French, English, and German rural history that appeared from time to time at too great intervals to suit more than one of us. The titles by themselves are full of meaning and show a pattern: "La Vie rurale: problèmes de jadis et de naguère," 2:96–120 (1930); "A propos d'un essai d'histoire régionale," 4:73–77 (1932); "Régions naturelles et groupes sociaux," 4:489–510 (1932); "Sur quelques histoires de villages," 5:471–478 (1933); "Histoire rurale et statistique: à propos d'une étude sur la Côte-d'Or," 5:492–494 (1933); "Les 'Usages locaux', documents historiques," 5:584–585 (1933); "Une Étude régionale: géographie ou histoire?" 6:81–85 (1934); "Réflexions d'un historien sur quelques travaux de toponymie," 6:252–260 (1934); "Champs et villages," 6:467–489 (1934); "En Angleterre, rien qu'en Angleterre," 7:320–323 (1935); "Les Paysages agraires: essai de mise au point," 8:256–277 (1936); "Villages de France et d'ailleurs," 8:592–598 (1936); "Apologie pour le travail utile," 9:80–85 (1937); "Géographie historique, toponymie et cartographie," 9:208–212 (1937); "Village et seigneurie: quelques observations de méthode...," 9:493–500 (1937); "Les Deux Allemagnes rurales," 9:606–610 (1937); and we are here citing only the longest.

A very generous feeling of friendship for all objective research workers gave his criticisms a very personal force. Always remaining a judge and sometimes a severe one, he easily changed into a collaborator. His analyses of books were most frequently sympathetic and led to direct contacts with newcomers. His assistance was never withehld from them; it was not remote and verbal amiability. It took the form of correspondence, bibliographical information, and the loan of books, plates and prints, or maps. He helped scholars buried in remote parts of the country more and better than they ever realized. He loved to discover talent, and his confidence in the common work and the noble things of life turned these workers toward fields of fruitful research for everyone. In his spirit, as well as in that of Lucien Febvre, the *Annales* became, above all else, a review of orientation, of mutual assistance, a medium of contact between Parisian and provincial workers and between historians and neophytes. From this work came his effort to solve the extremely difficult problems of grouping, directing and financing studies and reviews of local history and his interventions and articles on the old and comtemporary plans of parcelling. See his articles: "Une Bonne Nouvelle: l'enquête sur les plans cadastraux français," 4:370–371 (1932); "En France: le travail qui se fait; En Suède," 5:374–375 (1933); "Les Terroirs du Nord au lendemain de la Révolution; En Seine-et-Oise," 7:39–41 (1935); "Pour mieux connaître les campagnes françaises," 8:381–382 (1936); and "Nord et Sud: une enquête," 8:576 (1936).

Out of these preparations and this perseverance many hoped to see emerge a *revue d'histoire rurale* of which Bloch would have been the founder and director. The war, his death, and the difficulties of every sort that historical journals encounter threw into the distant future the realization of this hope. It would have been a great rendezvous for research friendships, there the many isolated provincial workers could have brushed shoulders. Finally through the auspices of such a review there might have been arranged liberal loans of special books and journals without which no serious scholarly research is possible.

While awaiting the fair day when this great connecting link shall become a reality, let us turn to the new *Annales* of Lucien Febvre who in a much wider frame resumes, after a fashion, the work of Bloch, by welcoming the works and good will of isolated research workers. The *Annales* is to publish some unedited and certain numerous notes left by the great teacher who so diligently effaced himself in helping others. Under the aegis of his friends the journal will thus preserve in a measure his *élan* and inspiration.

Translated by Helen E. Hart

THE BREADS OF EPHESUS AND THEIR PRICES

NAUM JASNY

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In the *Classical Weekly*, 38(5):39–40 (Oct. 30, 1944), T. R. S. Broughton, reviewing a study of mine,[1] challenged a miller and a baker to analyze the prices of bread set by the market master at Ephesus.[2] Among those interested in classical history, the present writer may possibly pass for one familiar with those professions.

Four texts are involved.

THE BREADS

Text A. Prices of four kinds of ἄρτος, late I-early II A.D. The prices were: 2 obols for a 12-ounce καθαρός bread, a 13-ounce αὐτοπύρος bread, or a 9-ounce ῥαντός bread, and 3 obols for a 9-ounce σιλιγνείτης bread.

The reader will notice that in translating ἄρτος the word "bread" is used here rather than the word "loaf" used by Broughton. The word "loaf" may convey the idea of something resembling our modern loaf of bread, *i.e.*, a well-aerated, reasonably tall, mostly also large (2 pounds and more) individual piece of bread. The breads of Ephesus were poorly aerated or not aerated at all—conditions to which the form of a cake is best suitable. Also, the standard baking ovens of Egypt and the Near East were unadapted to loaves. The breads of Ephesus hardly differed from the cakes which used to be broken rather than cut with a knife at the time of Christ. The fact that those breads were cakes explains why all of them were rather small.

The αὐτοπύρος, as indicated by its name, was a whole-wheat bread. It was certainly made from σεμιδαλίτης wheat, which was the standard wheat in that area at that time. While they grew two types of σεμιδαλίτης wheat, durum and poulard, it is unlikely that a distinction between them was made in bread. Hence it is probable that the αὐτοπύρος was made from any σεμιδαλίτης wheat. The predominant part of σεμιδαλίτης in Asia Minor probably consisted of durum anyway.[3] The αὐτοπύρος, although the cheapest among the breads for which prices were set, was mentioned second; this indicates that it was not the standard or ordinary wheat bread sold in the market.

At the top of the list of breads was the καθαρός (white bread). This makes it very likely that this was the ordinary wheat bread among those sold in the market. As the αὐτοπύρος, the καθαρός was made from σεμιδαλίτης, the standard wheat of the area. Since the possibility that they distinguished in bread between different types of σεμιδαλίτης is rejected, the material from which it was made was flour from any σεμιδαλίτης. But what flour?

The καθαρός cost only one-twelfth more than the αὐτοπύρος. Since it is assumed that both breads were made from the same wheat, the difference in flours from which the two breads were made was but small. Hence, the καθαρός could not have been made from a flour reasonably free from bran. Even a flour of 80 percent extraction, not entirely free of bran, must have cost about 13 percent more than whole-wheat flour, and when baked must have had a smaller water-retention capacity (by perhaps 3 to 4 percent) than the latter. Bread from 80-percent extraction flour would have cost 15 to 20 percent more than whole-wheat bread. Hence the καθαρός probably was made from σεμιδαλίτης wheat, a little more carefully ground than that for the αὐτοπύρος, for example, possibly washed and with the coarsest 7 to 12 percent removed.

It is rather improbable that the καθαρός was made from the intermediate grade obtained in grinding σεμιδαλίτης wheat into three grades and designated by Pliny as *similago*. As shown by

[1] Naum Jasny, "Wheat Prices and Milling Costs in Classical Rome," Stanford University, Food Research Institute, *Wheat Studies*, 20(4):137–170 (Stanford University, 1944).

[2] See T. R. S. Broughton, "Roman Asia Minor," in *An Economic Survey of Ancient Rome*, ed. by Tenney Frank, 4:879–880 (Baltimore, 1938).

[3] Naum Jasny, *The Wheats of Classical Antiquity* (*The Johns Hopkins University Studies in Historical and Political Science*, ser. 62, no. 3, Baltimore, 1944), 97–98, and *passim*.

the writer, the 3-grade grinding was little practiced; there could not, therefore, have been enough of the intermediate grade available for the standard bread.

In any case, any of the flours from which the καθαρός bread might have been made would not have produced white bread and hence the term καθαρός (white) cannot be taken literally. Examples of similar inexactness in our day could be cited by the dozen. The very word "wheat" comes from "white" and whole-wheat bread certainly is not white. But it is white relative to a similar rye bread, and this relative whiteness probably accounts for the name.

I have no suggestions to offer with reference to the ῥαντός, translated "speckled" by Broughton, except that it also was a bread from σεμιδαλίτης wheat.

The name σιλιγνείτης definitely points to a bread from the preferred *siligo* (σιτανίας) wheat. Moreover, the flour used in the preparation of this bread was probably of considerably lower extraction than that used for the καθαρός bread.

That the price of σιλιγνείτης was twice as high as that of καθαρός bread seems reasonable. There were four factors which operated toward a large price difference between those breads: (1) *Siligo* (σιτανίας) was considerably more expensive than *triticum* (σεμιδαλίτης). The difference was computed by the present writer for Rome at almost 20 percent, but it was probably greater than that in Ephesus, because little *siligo* wheat was grown outside of Italy. (2) Flour of lower extraction cost more than flour of higher extraction from the same grain. (3) The water-retention capacity of the flour from which the σιλιγνείτης bread was made was lower than in the case of the καθαρός bread for three reasons. Any flour from *siligo* wheat had a smaller water-retention capacity than *triticum* wheat, lower-extraction flour has a smaller water-retention capacity than a higher-extraction flour from the same wheat; a smaller bread retains less water than an otherwise similar larger bread. (4) Overhead and profit are commonly larger on luxury than standard bread. That the best wheat bread is twice as expensive as ordiary wheat bread can still be observed in many countries.

The above reasoning implies that the σιλιγνείτης bread was white. Indeed, it was probably the only really white bread among those for which prices were set at Ephesus. But the flour from which it was made did not need necessarily to have been so fine as to be classed as γῦρις and described by Pliny as *flos*. There was little such fine flour in classical antiquity and possibly none was produced in Ephesus. The flour in question may have been of a 75- to 80-percent extraction, designated σιλιγνείτης (*siligo*).

Texts B and C. A price of 2 obols for ἄρτος, *weighing in one case 14 and in the other case 13 ounces, early II A. D., but in different years.* Since only the price of one kind of bread was set by the market master in each case, the bread must have been the standard or ordinary bread. This is also indicated by the fact that the bread was called simply ἄρτος. There is no reason to translate this word as fine bread as Broughton does. Even now the ordinary bread hardly is or can be properly called fine, except in a few countries with a very high standard of living such as the United States. Moreover, even where the bread is fine, it is not called so. The variation in the weight of the same bread shown by the two texts was obviously due to the desire to have the price in even obols; this practice is still in wide use.

Since the καθαρός of text A was assumed to have been the standard bread and since relatively little time passed between the dates of texts A and texts B and C, bread of approximately the same quality was probably involved in the second and third texts under the designation ἄρτος, as in the case of καθαρός of text A.

Text D. A 14-ounce ἄρτος *at 4 obols and a 10-ounce* κιβάριος *at 2 obols, early III A.D.* Here the price of ἄρτος is mentioned first. This supports the above assumption that ἄρτος was the standard bread. The quality of the ἄρτος of text D seems to have been about the same as that of the ἄρτος of texts B and C and of the καθαρός of text A.

The κιβάριος was a very poor bread as it was made of the last grade of flour, which, as has been shown by the present writer,[4] consisted to a large extent of bran. The poor quality of this bread (it would be used only for animals now) sufficiently accounts for the large price difference as compared with the ἄρτος.

THE PRICE LEVEL

Prices of all breads in Ephesus and, therefore, of the flours and wheats from which they were

[4] See Jasny, "Wheat Prices . . .," 154–155.

made were extraordinarily high, if Broughton's conversions are correct. According to Broughton, the prices of text A, in terms of cents per English pound, were; *καθαρός*, 7.0; *αὐτοπύρος*, 6.5; *ῥαντός*, 9.4; *σιλιγνείτης*, 14.1. These prices are comparable with the normal bread price of 4.7 cents per pound in Britain, 4.5 cents in Italy, and 3.7 cents in France.[5] The prices of bread in the United States cannot be used for purposes of comparison, owing to the use of expensive ingredients in the bread and the high cost of distribution.

If the comparison has to be between prices of breads of about the same quality, the price of *σιλιγνείτης* bread of Ephesus has to be taken for comparison with the bread prices in modern Europe. Then it is found that in Ephesus the bread was more than three times as expensive as in Britain or France today. But even the *καθαρός*, which was substantially poorer in quality than the present French and especially British bread, was about one and a half times as expensive as the French and British bread is today.

If the *καθαρός* cost 7 cents per pound and the *αὐτοπύρος* 6.5 cents, the wheat from which they were made must have cost about 5 cents per pound. The cost of grinding did not exceed 10 percent of the price of wheat, while 30 and 20 percent of the price of wheat, respectively, plus the water retained by the bread over the weight of the wheat should have covered the baking and distribution costs. An analysis of milling costs in antiquity has been presented by the writer elsewhere.[6] Baking costs cannot be analyzed here. An adequate idea can be formed from the fact that under normal conditions the standard fairly white wheat bread at retail is more expensive than wheat at wholesale (in percent): France, 41; Milan, 69; and Naples, 29.[7]

The 5 cents per English pound indicated by the bread prices at Ephesus as the wholesale price of wheat in the same place is certainly very high. Specifically it is an immense contradiction with the statement of Broughton that "the regular price of wheat at Antioch of Pisidia [also in Asia Minor] was 8–9 asses a modius (roughly 32 cts. a bushel)" in the late first century.[8] The admittedly high transportation costs in antiquity could not possibly have brought about an almost tenfold price difference in the case of such a relatively expensive product as wheat.

The prices of bread at Ephesus, if their conversion to American money by Broughton is even roughly correct, support the conclusions of the present writer reached in the study reviewed by Broughton that the prices of wheat in classical antiquity were much higher than is usually assumed. Their weakness as a proof for this assumption is that the wheat price indicated for Ephesus is much higher than that visualized by the writer for the classical world. This, as well as the contradiction between the evidence for Ephesus and Antioch, made it preferable not to use the evidence for Asia Minor in that study.

[5] The official data here quoted is from an unpublished study of the writer. Averages of 1926 to 1930, which can be considered representative of normal conditions. Basis: 4-pound loaf in Britain; 2-kilogram loaf in France; and loaves and rolls of various sizes in Italy.

[6] Jasny, "Wheat Prices . . .," 156–161.

[7] The French average is for 1924–1938; the price of bread is based on that of a 2-kilogram loaf. The Milan average is for 1932–1937; the price of bread is based on that for rolls of 80 to 170 grams. The Naples average is for 1932–1937; the price of bread is based on that for loaves of 300 to 500 grams.

[8] Broughton, "Roman Asia Minor," 879.

NEWS NOTES AND COMMENTS

COLUMBUS, OHIO, MEETING

The Agricultural History Society held a joint session with the Economic History Association and the Mississippi Valley Historical Association at the Deshler-Wallick Hotel in Columbus, Ohio, on Saturday morning, April 26, 1947. The session was devoted to the reading and discussion of the following papers: "The History of Terracing in the Southern States," by Arthur R. Hall of the United States Department of State; "Water Conflicts and Controls in Colorado," by Robert G. Dunbar of Colorado Agricultural and Mechanical College; and "The Campbell Method for the American Desert," by Mrs. Mary W. M. Hargreaves of New York City. Everett E. Edwards presided.

ACTIVITIES OF MEMBERS

Professor Robert M. Denhardt of Southern Methodist University is completing a book on the arrival and spread of the horse in the Western Hemisphere for publication by the University of Oklahoma Press.